U.S. Department
of Transportation
**Federal Aviation
Administration**

SDR Summary

Service Difficulty Reporting

November 30, 1997 - December 6, 1997

GENERAL AVIATION, ZAC-327

You can improve Air Safety by reporting the problem when you see it!

SECTION

ISSUE: 97-49

U.S. Department of Transportation
Federal Aviation Administration

SDR SUMMARY

General Aviation, ZAC-327

This summary includes domestic (United States) Service Difficulty Reports (SDRs) entered into the data base for aircraft weighing 12,500 lbs. and below. It also includes reports on aeronautical products (engines, propellers, and components), and all helicopters. A separate section for International SDRs for aircraft weighing 12,500 lbs. and under has also been included. Under a data exchange agreement, International SDRs are submitted to the FAA by the Civil Aviation Authority of other countries (currently, Canada - CAN, and Australia - AUS). All reports are sorted by aircraft make, model group (basic model), and Joint Aircraft System/Component (JASC) code. Within each aircraft model group, the specific model shown may vary, but similar types of reports will be grouped together and listed in ascending order by their JASC code. Each field contains all information submitted to the FAA. Some fields are not included in order to make the summary easier to read. Additional information may be obtained by referring to the "operator control number." Send your request to the Aviation Data Systems Branch, AFS-620 at the address or phone below.

The Regulatory Support Division (AFS-600) has established a "HomePage" on the Internet through which the same information is available. There is a large quantity of other information available through the AFS-600 HomePage such as the most current SDR system codes (i.e., Joint Aircraft System\Component Codes). The SDR Question and Answer Section of the Summary will also be transferred to the AFS-600 HomePage to simplify the process of preparing the SDR Summaries in the PDF format each week. There are "hot buttons" to take you to other locations and sites where FAA Flight Standards Service Information is available. The AFS-600 "HomePage" address is:

http://www.mmac.jccbi.gov/afs/afs600

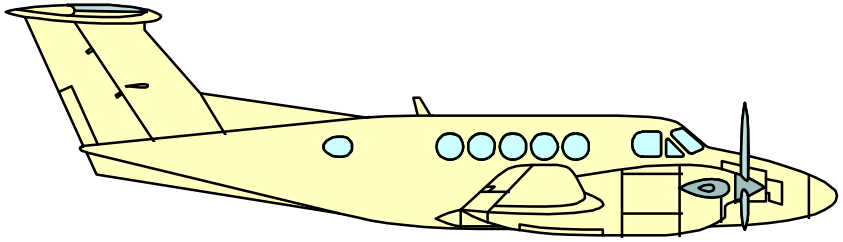
"The Service Difficulty Reports in this publication are derived from unverified information submitted by the aviation community without FAA verification for accuracy. The number of SDRs submitted is not an indication of the mechanical reliability or fitness of an airline or individual operator, and the information should not be used as such."

Comments are welcomed and may be directed to:

Federal Aviation Administration
Aviation Data Systems Branch, AFS-620
P.O. Box 25082
Oklahoma City, OK 73125-5029
Phone: (405) 954-4171, Fax: (405) 954-4748

Your continued participation is essential and is an integral part of ensuring aviation safety. Thank you for supporting the Service Difficulty Program! If you have any questions regarding this special notice you can contact John Jackson at (405) 954-6486, or Jim Gillespie at (405) 954-1141, or Blake McDonald at (405) 954-0307 in the Aviation Systems Branch (AFS-620). Their E-mail addresses are:

john_e_jackson@mmacmail.jccbi.gov **james_gillespie@mmacmail.jccbi.gov** **blake_mcdonald@mmacmail.jccbi.gov**



SIGNIFICANT OCCURRENCE REPORT

U.S. Department
of Transportation
Federal Aviation Administration

THE SIGNIFICANT OCCURRENCE REPORT

The Significant Occurrence Report is a compilation all of the star bordered reports that appear in the General Aviation Service Difficulty Report (SDR) Summary, ZAC-327. The Significant Occurrence Report is used to highlight industry problem areas to field inspectors and the aviation public.

Limited analysis is performed by the Aviation Data Systems Branch, AFS-620 during the preparation of the "Significant Occurrence Report", which is generated each week and is included in the front of the Air Carrier SDR Summary. Significant Reports are hand selected by AFS-620's inspectors based on the individual merit of each report. The criteria for selection includes, but is not limited to, items that indicate high failure rates; items related to accidents or incidents; or design or maintenance failures which may affect the safe operation of the aircraft.

In some cases, this limited analysis of SDR data leads to the preparation of information bulletins which are routed to the appropriate product certification office for further investigation of the problem. The end result may be the issuance of an airworthiness directive (AD) by the Aircraft Certification Service (AIR) if warranted.

The Significant Occurrence Report (section I) of the weekly SDR Summary is not intended to be a summary of all significant events and should not be used as such. We recommend that you review further the applicable sections of the SDR summary that may be of interest.

GENERAL AVIATION SIGNIFICANT OCCURRENCE REPORT

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2150	200NY	BEECH				HOSE	MISINSTALLED	5	10/31/97
	BC25	A200					AIR COND		97ZZZX4935
*****	ACFT MILES FROM DESTINATION WHEN CREW NOTICED CABIN TEMP WAS HIGH. CABIN CONTROL WAS ON 'AUTO MODE'. CHANGING TO 'MANUAL MODE' AND TOGGLING DOWN TEMPERATURE RESULTED IN A LOUD POP OR BANG THOUGHT TO BE RAPID DECOMPRESSURIZATION. A MIST FORMED IN THE CABIN, SMOKE ISSUED FROM OVERHEAD VENTS, AND STRONG OIL SMELL UPSET OCCUPANTS. EMERGENCY DECLARED. UNEVENTFUL LANDING ACCOMPLISHED. FWD EVAPORATOR FOUND RUPTURED IN CAPILLARY/COOLING FIN AREA IN CENTER OF EVAPORATOR. FURTHER INVEST FND AIR COND SUCTION AND DISCHARGE LINES INSTALLED REVERSED WHEN REPLACED WITH NEW 4.5 HRS PREVIOUSLY. REPAIR STATION REPLACED HOSE, INSPECTOR DOUBLE INSPECTED.								
7921	7288D	BEECH				OIL COOLER	LEAKING	6	11/17/97
TE1R	P81	B60				LW10025	ENGINE OIL		97ZZZX4955
*****	THE FIRST OIL COOLER WAS INSTALLED WHEN THE ORIGINAL OIL COOLER DEVELOPED A LEAK AT 2426.8 HOURS. THIS OIL COOLER DEVELOPED A LEAK AFTER ABOUT 6 HOURS. OIL COOLER NR 2 WAS INSTALLED AND DEVELOPED A LEAK AFTER 2 HRS. THE NR 2 OIL COOLER WAS CUT IN TWO TO SEE IF THE CAUSE OF THE LEAKS COULD BE DETERMINED. FOUND LAST LEAK REPAIRED BY FILLING THE LEAKING SEGMENT WITH INDUSTRIAL TYPE EPOXY. THIS UNIT WAS REPLACED WITH A NEW UNIT.								
6520	73953	BELL				CASE	CORRODED	2292	11/16/97
	2866	47G2A1			476400751	4764521215	T/R GEARBOX	831	97ZZZX4933
*****	WHILE TROUBLESHOOTING FOR A LOOSE TAIL ROTOR GUARD IN TAIL ROTOR GEARBOX HOUSING, PULLED THE GUARD OUT OF THE GEARBOX AND FOUND FERTILIZER PACKED INTO CAVITY. WHILE SCRAPING FERTILIZER OUT OF CAVITY, FOUND CORROSION HAD EATEN THROUGH MAGNESIUM HOUSING. THE PACKED FERTILIZER WAS KEEPING THE OIL FROM LEAKING OUT.								
2710	4952E	CESSNA				CABLE	FRAYED	1573	10/24/97
	18503918	185F				0510105322	AILERON		97ZZZX4889
*****	CABLES (ALL 3) WERE FRAYED ON FUSELAGE 90 DEGREE PULLEYS. THE AIRCRAFT HAD BEEN TREATED INTERNALLY WITH 'THERMAL GARD'. THE TREATMENT WAS FOR ANTI-CORROSION. THE TREATMENT FORMED A SMOOTH BARRIER THAT MADE VISUAL INSPECTION LOOK OK. CLEANING CABLES WITH SOLVENT AND CLOTH RAGS REVEALED MANY BROKEN STRANDS.								
6114		CESSNA		MCAULY		HUB	CRACKED	800	8/5/97
	18802473T	A188B		D2A34C98		C98	NR 1 SOCKET		97ZZZX4873
*****	PROPELLER IN FOR RESEAL AND A CRACK WAS FOUND IN THE BLADE RETENTION THREADS OF NR 1 HUB SOCKET. THE CRACK HAD NOT YET GONE THROUGH THE HUB TO THE OUTSIDE.								
6114	2543S	CESSNA		MCAULY		HUB	CRACKED		11/11/97
	3370843	337C		D2AF34C61		D4885C61	NR 2 SOCKET		97ZZZX4868
*****	A CRACK WAS FOUND IN THE REAR OF BLADE SOCKET NR 2 DURING A DYE PENETRANT INSPECTION. THE HUB WAS RED TAGGED AND RETIRED FROM SERVICE. THE PROPELLER HAD BEEN IN SERVICE 3 YEARS SINCE LAST OVERHAUL AND AD 91-15-04 HAD BEEN C/W AT THAT TIME.								
2750	31DB	CESSNA				PULLEY	FAILED		10/10/97
	4010202	401					FLAP		97ZZZX4887
*****	ON 100-HOUR INPSPECTION, FOUND FLAP PULLEY ON ACTUATOR CABLE (RETURN CABLE) UNDER AND AFT OF BATTERY BOX FAILED. CENTER BEARING HAD FROZEN DUE TO BATTERY ACID LEAKING FROM BROKEN DRAIN LINE. WHEN BEARING FROZE, IT BROKE LOOSE FROM PULLEY AND PULLEY WAS ROTATING ON OUTER BEARING RACK. SUBMITTER SUGGESTS CLOSE INSPECTION OF THIS AREA DURING INSPECTIONS.								
5541	387HA	CESSNA				RIB	CRACKED	5921	11/17/97
SI6R	0465	550				55331160	RUDDER		97ZZZX4966
*****	UPON REMOVAL OF THE LEFT LOWER RUDDER CLOSEOUT SKIN, THE INTERSPAR RIB WAS FOUND CRACKED ACROSS THE ENTIRE WIDTH OF THE RIB. THE DAMAGE TO THE RIB WAS A CLEAR INDICATION OF A CRACK CAUSED BY FATIGUE. THE DECREASED INTEGRITY ALSO CAUSED THE ATTACHING RUDDER SKIN TO CRACK.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2810	5027P	HUGHES				TANK	COLLAPSED	2	11/16/97
LS1R	611002D	369D				37510007	AUX FUEL		97ZZZX4970
*****	AUXILIARY FUEL TANK COLLAPSED DUE TO VACUUM FROM FUEL TRANSFER TO MAIN TANK. UPON INVESTIGATION, FOUND MASKING TAPE WAS PLUGGING THE VENT STANDPIPE APPARENTLY TO PREVENT PAINT FROM ENTERING THE VENT TUBE WHEN THE TANK WAS PAINTED BY THE MANUFACTURER. AIRCRAFT WAS LANDED WITHOUT INCIDENT.								
6111	21CJ	MTSBSI		HARTZL		CLAMP	CRACKED	4642	10/29/97
	789SA	MU2B60		HCB4TN5		C1301	PROP NR 4 BLADE	2493	97ZZZX4894
*****	INSPECTION REPORT CONDUCTED BY HARTZELL PROPELLER INC., REVEALED CRACK IN PROPELLER BLADE CLAMP. SUSPECT CAUSE OF CRACK DUE TO FATIGUE.								
7160	1458C	PIPER				HOSE	FAILED		11/1/97
	182657	PA18135					ENGINE INDUCT		97ZZZX4958
*****	LINING OF INDUCTION HOSES SWELLED INWARD THEN CRACKED AROUND THE INSIDE DIAMETER CIRCUMFERENCE. SOME LINING BROKE OFF AND PASSED THROUGH COMBUSTION CHAMBERS. THE SWELLED LINING THAT REMAINED SWELLED OUT ENOUGH TO OBSTRUCT FLOW CAUSING THE ENGINE TO RUN ROUGH AT HIGH THROTTLE SETTINGS AND LOSE 200 TO 250 RPM'S AT FULL THROTTLE. THE PROBLEM WAS HARD TO ISOLATE BECAUSE THE LINING WOULD SHRINK BACK WHEN THE ENGINE WAS NOT RUN FOR SEVERAL DAYS. THIS ENGINE WAS A FRESH FACTORY OVERHAUL.								
3213	38KC	PIPER				HOUSING	CRACKED		11/11/97
	318352033	PA31350				40327000	RT MLG		97ZZZX4888
*****	FOUND RIGHT MAIN LANDING GEAR HOUSING CRACKED. CRACK ORIGINATED UNDER CLAMP WHICH ATTACHED BRAKE LINE GUARD TO HOUSING. CRACK WAS APPROXIMATELY 1 INCH AND BEGAN BELOW CASTING MARK ON AFT SIDE OF STRUT.								

(End of GENERAL AVIATION SIGNIFICANT OCCURRENCE REPORT)

Run Date: 11-Dec-97

FEDERAL AVIATION ADMINISTRATION

SIGNIFICANT OCCURRENCE REPORT INDEX

Showing Specific Part Numbers and Aircraft Model by Year

FOR THE PERIOD OF: 11/30/97 To 12/6/97

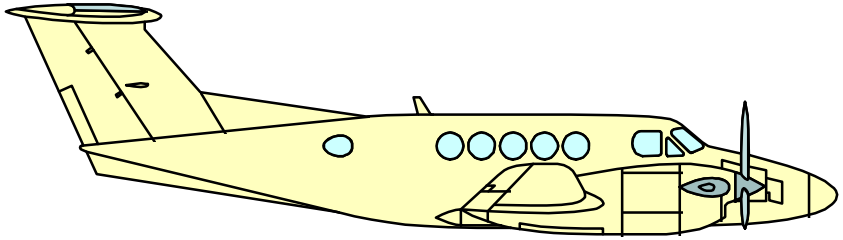
PART NUMBER / PART NAME	ACFT MODEL	TOTAL	YEAR 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
0510105322													
CABLE	185F	**1**	-	-	-	-	-	-	-	-	-	-	1
	A185F	**2**	-	-	-	-	-	-	1	1	-	-	-
TOTAL of # 0510105322		**3**	-	-	-	-	-	-	1	1	-	-	1
215081505													
DUCT BLEED AIR	CL600*	**1**	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 215081505		**1**	-	-	-	-	-	-	-	-	-	-	1
30A1102													
LPT DISK	60LEAR	**1**	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 30A1102		**1**	-	-	-	-	-	-	-	-	-	-	1
37510007													
TANK	369D	**1**	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 37510007		**1**	-	-	-	-	-	-	-	-	-	-	1
40327000													
HOUSING	PA31350	**1**	-	-	-	-	-	-	-	-	-	-	1
TRUNNION	PA31350	**1**	-	-	-	-	-	-	1	-	-	-	-
TOTAL of # 40327000		**2**	-	-	-	-	-	-	1	-	-	-	1
4764521215													
CASE	47G2A1	**1**	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 4764521215		**1**	-	-	-	-	-	-	-	-	-	-	1
55331160													
RIB	550	**1**	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 55331160		**1**	-	-	-	-	-	-	-	-	-	-	1
67184													
GASKET	31A	**1**	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 67184		**1**	-	-	-	-	-	-	-	-	-	-	1

PART NUMBER / PART NAME	ACFT MODEL	TOTAL	YEAR 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
C1301													
CLAMP	MU2B60	**1**	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # C1301 - - - - - - - - - - - - - - - -		**1**	-	-	-	-	-	-	-	-	-	-	1
C98													
HUB	188CESSNA	**2**	-	-	-	-	-	-	1	1	-	-	-
	A188A	**1**	-	-	-	-	-	-	-	-	-	1	-
	A188B	**2**	-	-	-	-	-	-	-	1	-	-	1
	unknown	**1**	-	-	-	-	-	1	-	-	-	-	-
TOTAL of # C98 - - - - - - - - - - - - - - - -		**6**	-	-	-	-	-	1	1	2	-	1	1
D4885C61													
HUB	337C	**1**	-	-	-	-	-	-	-	-	-	-	1
	unknown	**1**	-	-	-	-	-	1	-	-	-	-	-
TOTAL of # D4885C61 - - - - - - - - - - - - - - - -		**2**	-	-	-	-	-	1	-	-	-	-	1
LW10025													
OIL COOLER	B60	**1**	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # LW10025 - - - - - - - - - - - - - - - -		**1**	-	-	-	-	-	-	-	-	-	-	1
TOTAL for ALL (18) PART NUMBERS: - - - -		**21**	-	-	-	-	-	2	3	3	-	1	12

END OF SIGNIFICANT OCCURRENCE REPORT INDEX

DOMESTIC

SERVICE DIFFICULTY REPORT



DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3230	486JB	BEECH				SPROCKET	FAILED	4500	10/10/97
	AF858	C45H				2162	NLG		97ZZZX4960
	LANDING GEAR FAILED TO EXTEND UPON LANDING AT ORLANDO INTERNATIONAL DUE TO THE POSITION OF ACFT. AFTER REMOVAL FROM THE RUNWAY, A DETERMINATION OF CAUSE IS NOT POSSIBLE.								
2150	200NY	BEECH				HOSE	MISINSTALLED	5	10/31/97
	BC25	A200					AIR COND		97ZZZX4935
*****	ACFT MILES FROM DESTINATION WHEN CREW NOTICED CABIN TEMP WAS HIGH. CABIN CONTROL WAS ON 'AUTO MODE'. CHANGING TO 'MANUAL MODE' AND TOGGLING DOWN TEMPERATURE RESULTED IN A LOUD POP OR BANG THOUGHT TO BE RAPID DECOMPRESSURIZATION. A MIST FORMED IN THE CABIN, SMOKE ISSUED FROM OVERHEAD VENTS, AND STRONG OIL SMELL UPSET OCCUPANTS. EMERGENCY DECLARED. UNEVENTFUL LANDING ACCOMPLISHED. FWD EVAPORATOR FOUND RUPTURED IN CAPILLARY/COOLING FIN AREA IN CENTER OF EVAPORATOR. FURTHER INVEST FND AIR COND SUCTION AND DISCHARGE LINES INSTALLED REVERSED WHEN REPLACED WITH NEW 4.5 HRS PREVIOUSLY. REPAIR STATION REPLACED HOSE, INSPECTOR DOUBLE INSPECTED.								
2434	23993	BEECH			FORD	ALTERNATOR	FAILED		10/10/97
NV2R	MC476	C24R				DOFF10300J	DC SYSTEM	227	97ZZZX4867
	ALTERNATOR FAILED IN IMC. AIRCRAFT WAS LANDED GEAR UP. SUBSTANTIAL DAMAGE. NO INJURIES. INSTALLED NEW ALTERNATOR. OPS CHECKED OK. FAILED ALTERNATOR OVERHAUL. ON 11-15-96. INSTALLED 5-19-97.								
7602	12CM	BEECH				CABLE	BROKEN	52	10/6/97
EBTR	TC300	95A55				5038901021	MIXTURE		97ZZZX4866
	RIGHT MIXTURE CABLE WORKING FINE AND SMOOTH. MADE FLIGHT, ENGINE WOULD NOT SHUT DOWN. FOUND CABLE BROKEN AT WELD JOINT ON ENGINE END UNDER SOLID SHEATH. INSTALLED NEW CABLE.								
7921	7288D	BEECH				OIL COOLER	LEAKING	2	11/17/97
TE1R	P81	B60				LW10025	ENGINE OIL		97ZZZX4956
	THE FIRST OIL COOLER WAS INSTALLED WHEN THE ORIGINAL OIL COOLER DEVELOPED A LEAK AT 2426.8 HOURS. THIS OIL COOLER DEVELOPED A LEAK AFTER ABOUT 6 HOURS. OIL COOLER NR 2 WAS INSTALLED AND DEVELOPED A LEAK AFTER 2 HRS. THE NR 2 OIL COOLER WAS CUT IN TWO TO SEE IF THE CAUSE OF THE LEAKS COULD BE DETERMINED. FOUND LAST LEAK REPAIRED BY FILLING THE LEAKING SEGMENT WITH INDUSTRIAL TYPE EPOXY. THIS UNIT WAS REPLACED WITH A NEW UNIT.								
7921	7288D	BEECH				OIL COOLER	LEAKING	6	11/17/97
TE1R	P81	B60				LW10025	ENGINE OIL		97ZZZX4955
*****	THE FIRST OIL COOLER WAS INSTALLED WHEN THE ORIGINAL OIL COOLER DEVELOPED A LEAK AT 2426.8 HOURS. THIS OIL COOLER DEVELOPED A LEAK AFTER ABOUT 6 HOURS. OIL COOLER NR 2 WAS INSTALLED AND DEVELOPED A LEAK AFTER 2 HRS. THE NR 2 OIL COOLER WAS CUT IN TWO TO SEE IF THE CAUSE OF THE LEAKS COULD BE DETERMINED. FOUND LAST LEAK REPAIRED BY FILLING THE LEAKING SEGMENT WITH INDUSTRIAL TYPE EPOXY. THIS UNIT WAS REPLACED WITH A NEW UNIT.								
3710	491JV	BEECH				TUBE ASSY	CHAFED	2299	11/17/97
	LJ1349	C90A				1013202661	VACUUM SYSTEM		97ZZZX4968
	VACUUM TUBE ASSY WAS WORN THROUGH IN A 3 INCH BY .1250 INCH AREA. THE RADAR CRT WAS RESTING ON PIPE. THERE WAS NO LEAK WHEN THE PANEL WAS AT REST. MOVING THE GEAR HANDLE EXPOSED THE LEAK BY MOVING THE RADAR UNIT FOWARD. THIS WAS FOUND WHEN PERFORMING A RETRACTION CHECK ON JACKS IN THE HANGAR.								
2710	4952E	CESSNA				CABLE	FRAYED	1573	10/24/97
	18503918	185F				0510105113	AILERON		97ZZZX4890
	CABLES (ALL 3) WERE FRAYED ON FUSELAGE 90 DEGREE PULLEYS. THE AIRCRAFT HAD BEEN TREATED INTERNALLY WITH 'THERMAL GARD'. THE TREATMENT WAS FOR ANTI-CORROSION. THE TREATMENT FORMED A SMOOTH BARRIER THAT MADE VISUAL INSPECTION LOOK OK. CLEANING CABLES WITH SOLVENT AND CLOTH RAGS REVEALED MANY BROKEN STRANDS.								

******* DENOTES SIGNIFICANT OCCURRENCE**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2710	4952E	CESSNA				CABLE	FRAYED	1573	10/24/97
	18503918	185F				0510105322	AILERON		97ZZZX4889
*****	CABLES (ALL 3) WERE FRAYED ON FUSELAGE 90 DEGREE PULLEYS. THE AIRCRAFT HAD BEEN TREATED INTERNALLY WITH 'THERMAL GARD'. THE TREATMENT WAS FOR ANTI-CORROSION. THE TREATMENT FORMED A SMOOTH BARRIER THAT MADE VISUAL INSPECTION LOOK OK. CLEANING CABLES WITH SOLVENT AND CLOTH RAGS REVEALED MANY BROKEN STRANDS.								
2430	9959R	CESSNA				RELAY	SHORTED		11/6/97
RF1R	U20607000	U206G				A7002C7	GEN REV CUR		97ZZZX4882
	GENERATOR WOULD NOT STAY ON LINE, FOUND REVERSE CURRENT RELAY FULL OF WATER WHICH SHORTED RELAY. AIRCRAFT SAT OUTSIDE IN HEAVY RAIN. SUGGEST SEALING ELECTRICAL BOX WITH NEOPHRENE GASKET AND WIRE BUNDLE WITH SILICON. THIS AIRCRAFT IS A SOLOY CONVERSION.								
7120	61DW	CESSNA				MOUNT	FAILED		11/18/97
RF1R	620604257	TU206G					ENGINE SHOCK		97ZZZX4880
	FORWARD ENGINE SHOCK MOUNTS FLATTENED CAUSING OIL TEMPERATURES TO INCREASE. INSTALLED NEW ENGINE SHOCK MOUNTS WHICH RAISED OIL COOLER INTO PROPER AIR STREAM FOR BETTER COOLING.								
2823	4891U	CESSNA				VALVE	DEFECTIVE	4177	11/19/97
RF1R	21064834	T210N					FUEL SELECTOR		97ZZZX4883
	LEFT/RIGHT FUEL TANK NOT FEEDING ENGINE EQUALLY. LT FUEL QUANTITY SLOWER TO EMPTY. ACTING LIKE ONLY FEEDING FROM RT TANK. FUEL RETURN PORTION OF FUEL SELECTOR INTERNALLY LEAKING CAUSING RETURN FUEL FLOW TO LT TANK ONLY. RESEAL FUEL SELECTOR VALVE.								
3230	500SH	CESSNA				LINKAGE	FAILED		11/5/97
	310N0108	310N				08421201	NLG RETRACT		97ZZZX4886
	AFTER SELECTING GEAR DOWN ON APPROACH, PILOT NOTICED NOSE GEAR NOT DOWN AND LOCKED. PILOT MADE SEVERAL ATTEMPTS, BUT GEAR WAS JAMMED. PILOT LANDED, NOSE GEAR COLLAPSED. MINOR DAMAGE TO AIRCRAFT. NO INJURIES TO PILOT. MAINTENANCE INSPECTION REVEALED THE NOSE GEAR MAY HAVE BEEN RIGGED IMPROPERLY OR GEAR LINKAGE FAILED DUE TO PRIOR HARD LANDINGS.								
3234	340JE	CESSNA				SWITCH	FAILED	5304	10/16/97
BXSR	3400046	340CESSNA				MS25126E	GEAR SELECT		97ZZZX4869
	LANDING GEAR WOULD NOT EXTEND WHEN GEAR DOWN WAS SELECTED. GEAR WAS MANUALLY EXTENDED WITH NO PROBLEM. TROUBLESHOT AND FOUND THE GEAR POSITION SELECTOR SWITCH WOULD REMAIN OPEN IN THE DOWN POSITION. SWITCH REPLACED.								
2750	31DB	CESSNA				PULLEY	FAILED		10/10/97
	4010202	401					FLAP		97ZZZX4887
*****	ON 100-HOUR INPSPECTION, FOUND FLAP PULLEY ON ACTUATOR CABLE (RETURN CABLE) UNDER AND AFT OF BATTERY BOX FAILED. CENTER BEARING HAD FROZEN DUE TO BATTERY ACID LEAKING FROM BROKEN DRAIN LINE. WHEN BEARING FROZE, IT BROKE LOOSE FROM PULLEY AND PULLEY WAS ROTATING ON OUTER BEARING RACK. SUBMITTER SUGGESTS CLOSE INSPECTION OF THIS AREA DURING INSPECTIONS.								
3320	7037E	CESSNA				POTENTIOMETER	FAILED		11/10/97
	402C0471	402C				CM35351	DIMMER BOARD		97ZZZX4962
	AN ODOR OF ELECTRICAL SMOKE FILLED THE CABIN. AIRCRAFT LANDED WITHOUT INCIDENCE. FOUND THE DIMMER BOARD AT FAULT. DIMMER ASSY REPLACED AND AIRCRAFT RETURNED TO SERVICE.								
5541	387HA	CESSNA				RIB	CRACKED	5921	11/17/97
SI6R	0465	550				55331160	RUDDER		97ZZZX4966
*****	UPON REMOVAL OF THE LEFT LOWER RUDDER CLOSEOUT SKIN, THE INTERSPAR RIB WAS FOUND CRACKED ACROSS THE ENTIRE WIDTH OF THE RIB. THE DAMAGE TO THE RIB WAS A CLEAR INDICATION OF A CRACK CAUSED BY FATIGUE. THE DECREASED INTEGRITY ALSO CAUSED THE ATTACHING RUDDER SKIN TO CRACK.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2161	1TC	PILATS				VALVE	FAILED	1114	9/17/97
	130	PC12				9599020134	CABIN TEMP		97ZZZX4885
	PILOTS AND OWNERS REPORT THE COCKPIT AND CABIN ARE GETTING TOO HOT AND CANNOT CONTROL TEMPERATURE WITH THE E.C.S. IN AUTOMODE AND THE MANUAL MODE. VISUALLY INSPECTED TEMPERATURE CONTROL VALVE AND CANNOT SEE VALVE OPENING OR CLOSING.								
2161	612PC	PILATS				VALVE	FAILED	436	10/9/97
	146	PC12				9599020134	CABIN TEMP		97ZZZX4884
	PILOT REPORTED AIRCRAFT HAD NO HEAT. TROUBLESHOT E.C.S. SYSTEM. FOUND HEAT VALVE INOPERABLE. WOULD NOT OPERATE IN AUTO OR MANUAL MODES. REPLACED VALVES. OPS CHECKED GOOD.								
7160	1458C	PIPER				HOSE	FAILED		11/1/97
	182657	PA18135					ENGINE INDUCT		97ZZZX4958
*****	LINING OF INDUCTION HOSES SWELLED INWARD THEN CRACKED AROUND THE INSIDE DIAMETER CIRCUMFERENCE. SOME LINING BROKE OFF AND PASSED THROUGH COMBUSTION CHAMBERS. THE SWELLED LINING THAT REMAINED SWELLED OUT ENOUGH TO OBSTRUCT FLOW CAUSING THE ENGINE TO RUN ROUGH AT HIGH THROTTLE SETTINGS AND LOSE 200 TO 250 RPM'S AT FULL THROTTLE. THE PROBLEM WAS HARD TO ISOLATE BECAUSE THE LINING WOULD SHRINK BACK WHEN THE ENGINE WAS NOT RUN FOR SEVERAL DAYS. THIS ENGINE WAS A FRESH FACTORY OVERHAUL.								
2140	4108D	PIPER			JANITROL	COMBUSTION LINER	CRACKED		11/19/97
	318352018	PA31350			65D793		HEATER	486	97ZZZX4874
	HEATER FAILED PRESSURE DECAY TEST. UPON REMOVAL, CRACK WAS NOTED IN COMBUSTION LINER.								
3213	38KC	PIPER				HOUSING	CRACKED		11/11/97
	318352033	PA31350				40327000	RT MLG		97ZZZX4888
*****	FOUND RIGHT MAIN LANDING GEAR HOUSING CRACKED. CRACK ORIGINATED UNDER CLAMP WHICH ATTACHED BRAKE LINE GUARD TO HOUSING. CRACK WAS APPROXIMATELY 1 INCH AND BEGAN BELOW CASTING MARK ON AFT SIDE OF STRUT.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT)

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7210	58HJ	BELL	LYC			LOCKCUP	CRACKED		11/13/97
ZP3R	30314	205A1	T5317A		103035012	103019501	OUTPUT GEARBOX	1745	97ZZZX4895
	FOLLOWING DISASSEMBLY OF ENGINE FOR METAL CONTAMINATION, DISCOVERED 2 EACH OF THE LOCKCUPS HAD FAILED. CUPS CRACKED AND SPLIT AT THE LOCKING TANGS WHICH ENGAGE THE PLANETARY GEARSHAFTS. THE RETAINING NUTS WHICH THE LOCKCUPS RETAIN, REMAINED IN PLACE AND THE PIECES OF THE LOCKCUPS WERE FOUND IN THE SCAVENGE SCREEN OF THE ACCESSORY DRIVE GEARBOX AND LAYING IN THE OUTPUT REDUCTION GEARBOX.								
2562	2270G	BELL			NARCO	ELT	FAILED		11/19/97
HEEA	3610	206B3				ELT910	COCKPIT		HEEA0012108
	ELT INOPERATIVE.								
2562	206LS	BELL			NARCO	ELT	FAILED		11/19/97
HEEA	51070	206L3				ELT910	COCKPIT		HEEA0012082
	ELT WOULD NOT TURN OFF.								
2820	5748Q	BELL				CARTRIDGE	DEFECTIVE		11/19/97
HEEA	45499	206L1				2C271	FUEL SYS		HEEA0012096
	FUEL PRESSURE READS LOW WHEN GENERATOR IS OFF LINE.								
2844	3116L	BELL				TRANSDUCER	FAILED		11/19/97
HEEA	51529	206L3				BSE20630G	FUEL PRESS		HEEA0012072
	TRANSMITS 5 VOLTS THROUGHOUT TEST AND CONNECTOR HAS RUST AND CORROSION.								
2913	50182	BELL				PUMP	WORN		11/19/97
HEEA	45242	206L1				206076030101	HYD SYS		HEEA0012107
	PUMP WORN SPLINE.								
3421	515KA	BELL				SYNCHRO	BROKEN		11/19/97
HEEA	51048	206L3			KA15A	071105304	COCKPIT		HEEA0012073
	CASE BROKEN.								
3422	515KA	BELL				FLUX VALVE	ERROR		11/19/97
HEEA	51048	206L3			KFM112	071105200	COCKPIT DIR SYS		HEEA0012071
	FLUX VALVE 30 DEG OFF.								
3425	515KA	BELL				HSI	INTERMITTENT		11/19/97
HEEA	51048	206L3			KI525A	066304607	COCKPIT		HEEA0012074
	INDICATOR HEADING DATA INTERMITTENT. CRS DATA VOLTAGE HIGH PRECESSES ON NORTH HEADING.								
3452	50182	BELL				TRANSPONDER	FAILED		11/19/97
HEEA	45242	206L1			KT76	066106200	COCKPIT ATC		HEEA0012110
	TRANSPONDER DOES NOT SEND OUT A CODE. (NO POWER OUT AND PULSE WIDTH OUT OF SPECS)								
6210	8593X	BELL				BLADE	CORRODED	1081	11/21/97
HEEA	51509	206L3				206015001107	M/R		HEEA0012119
	BLADE HAS DRILL HOLE IN THE SPAR FROM BELL. AFTER CLEANING THE CORROSION IN THE DRILL MARK IN THE SPAR, THE SPAR MEASURED ONLY .092" WHICH IS BELOW THE ALLOWABLE LIMIT. BLADE								

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6220		BELL				WASHER	CRACKED		11/4/97
		206B3				206010154003	M/R HUB	1200	97ZZZX4969
	M/R HUB S/N JILM 5051. WASHER WAS FOUND CRACKED STRAIGHT OUT INSIDE DIAMETER TO OUTSIDE DIAMETER DURING HUB OVERHAUL. WASHERS ARE NOT SPECIFIED TO BE M.P.I. NORMAL OVERHAUL PROCEDURES ARE TO M.P.I. THESE ITEMS.								
6230	2611	BELL				DUPLEX BEARING	BRINELLED	411	10/2/97
	45417	206L1			206010450113	206010443001	SWASHPLATE		97ZZZX4972
	THIS IS NR 6 AND NR 7 DUPLEX BEARING CHANGE FOR BRINELLING ON RACES PARTICULARLY THE LOWER INNER RACE. ALL HAVE BEEN CHANGED WITH LESS THAN 100-HOUR TT SINCE NEW.								
6230	577E	BELL				DUPLEX BEARING	BRINELLED	510	10/2/97
	45577	206L1			206010450113	206010443001	SWASHPLATE		97ZZZX4971
	THIS IS NR 6 AND NR 7 DUPLEX BEARING CHANGE FOR BRINELLING ON RACES PARTICULARLY THE LOWER INNER RACE. ALL HAVE BEEN CHANGED WITH LESS THAN 100-HOUR TT SINCE NEW.								
6320	42EA	BELL				SUN GEAR	PITTED	3329	11/19/97
HEEA	51542	206L3				206040561103	TRANSMISSION		HEEA0012109
	SUN GEAR SPLINES PITTED. REMOVED FROM TRANSMISSION S/N B51797, T.T. 3329:35, TSO 3329:35, TSI 1584:05. REPLACED WITH SERVICEABLE SUN GEAR.								
6330	8592X	BELL				LINK ASSY	SEPARATED		11/19/97
HEEA	51508	206L3				206033554101	M/R		HEEA0012091
	LINK ASSY BEARING SEPARATED.								
6330	6160Y	BELL				FLEXURE	DETERIORATED		11/18/97
HEEA	51609	206L3				206033516101	M/R XMSN		HEEA0012023
	FLEXURE RUBBER DETERIORATED.								
7314	2269A	BELL	ALLSN			FUEL PUMP	LEAKING	9525	11/19/97
HEEA	3608	206B3	250C20B			5002395D	SEAL DRAIN		HEEA0012098
	FUEL LEAKING FROM SEAL DRAIN.								
7714	3178K	BELL				INDICATOR	STICKS		11/19/97
HEEA	45765	206L1				206070266009	COCKPIT TACH		HEEA0012063
	INDICATOR NEEDLE STICKS THROUGHOUT SCALE.								
7714	210PH	BELL				TACH GEN	FAILED		11/19/97
HEEA	51541	206L3				206062627003	ENG RPM		HEEA0012095
	TACH GENERATOR VOLTAGE BETWEEN PHASES IS OUT.								
7921	2246Q	BELL				OIL COOLER	CORRODED		11/19/97
HEEA	45752	206L1				8543909	ENG OIL		HEEA0012078
	OIL COOLER HAS CORROSION IN FINS.								
7930	21431	BELL				INDICATOR	FAILED		11/10/97
HEEA	3452	206B3			174000103	174035201	ENG OIL		HEEA0011920
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7930	21431	BELL				INDICATOR	FAILED		11/10/97
HEEA	3452	206B3			174000103	174035201	ENG OIL		HEEA0011903
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	2163Y	BELL				INDICATOR	FAILED		11/10/97
HEEA	3496	206B3			03773804	1740352	ENG OIL		HEEA0011919
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	2268A	BELL				INDICATOR	FAILED		11/10/97
HEEA	3602	206B3			174000101	1740352	ENG OIL		HEEA0011910
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	2272J	BELL				INDICATOR	FAILED		11/10/97
HEEA	3620	206B3			174000103	174035201	ENG OIL		HEEA0011891
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	2277A	BELL				INDICATOR	FAILED		11/10/97
HEEA	3630	206B3			174000103	174035201	ENG OIL		HEEA0011913
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	2285B	BELL				INDICATOR	FAILED		11/10/97
HEEA	3642	206B3			174000103	174035201	ENG OIL		HEEA0011899
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	3181J	BELL				INDICATOR	FAILED		11/10/97
HEEA	3771	206B3			174000103	174035201	ENG OIL		HEEA0011927
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	5006F	BELL				INDICATOR	FAILED		11/10/97
HEEA	45181	206L1			174000103	174035201	ENG OIL		HEEA0011893
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	5014Y	BELL				INDICATOR	FAILED		11/10/97
HEEA	45219	206L1			174000103	174035201	ENG OIL		HEEA0011911
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	2758N	BELL				INDICATOR	FAILED		11/10/97
HEEA	45267	206L1			174000103	174035201	ENG OIL		HEEA0011895
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7930	1078C	BELL				INDICATOR	FAILED		11/10/97
HEEA	45392	206L1			174000103	174035201	ENG OIL		HEEA0011926
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	1078G	BELL				INDICATOR	FAILED		11/10/97
HEEA	45398	206L1			174000103	174035201	ENG OIL		HEEA0011923
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	45RP	BELL				INDICATOR	FAILED		11/10/97
HEEA	45521	206L1			03773804	1740352	ENG OIL		HEEA0011924
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	2245Y	BELL				INDICATOR	FAILED		11/10/97
HEEA	45751	206L1			174000103	174035201	ENG OIL		HEEA0011896
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	2250U	BELL				INDICATOR	FAILED		11/10/97
HEEA	45754	206L1			174000103	174035201	ENG OIL		HEEA0011897
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	2251Z	BELL				INDICATOR	FAILED		11/10/97
HEEA	45756	206L1			174000103	174035201	ENG OIL		HEEA0011907
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	81SP	BELL				INDICATOR	FAILED		11/10/97
HEEA	51029	206L3			174000101	1740352	ENG OIL		HEEA0011925
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	31801	BELL				INDICATOR	FAILED		11/10/97
HEEA	51074	206L3			174000103	174035201	ENG OIL		HEEA0011909
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	979BH	BELL				INDICATOR	FAILED		11/10/97
HEEA	51403	206L3			174000101	1740352	ENG OIL		HEEA0011912
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	6610Y	BELL				INDICATOR	FAILED		11/10/97
HEEA	51419	206L3			174000103	174035201	ENG OIL		HEEA0011921
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7930	8587X	BELL				INDICATOR	FAILED		11/10/97
HEEA	51464	206L3			174000103	174035201	ENG OIL		HEEA0011908
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	41791	BELL				INDICATOR	FAILED		11/10/97
HEEA	51465	206L3			174000103	174035201	ENG OIL		HEEA0011917
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	8592X	BELL				INDICATOR	FAILED		11/10/97
HEEA	51508	206L3			174000103	174035201	ENG OIL		HEEA0011905
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	8593X	BELL				INDICATOR	FAILED		11/10/97
HEEA	51509	206L3			174000103	174035201	ENG OIL		HEEA0011892
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	31073	BELL				INDICATOR	FAILED		11/10/97
HEEA	51519	206L3			174000103	174035201	ENG OIL		HEEA0011894
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
8010	1067D	BELL				RELAY	FAILED		10/20/97
ALGA	45435	206L1				A1077	STARTER		97ZZZX4898
	DURING THE SECOND START OF THE DAY, THE GENERATOR FAILED TO COME ON LINE. RESET GENERATOR AND FAILED TO COME ON LINE. REMOVED AND REPLACED STARTER GENERATOR. ATTEMPTED START, STARTER GENERATOR STARTED SMOKING, AND CAUGHT FIRE. ABORTED AND EXTINGUISHED FIRE QUICKLY. INSPECTED ENGINE AND AIRFRAME, NO DAMAGE FOUND. FOUND STARTER RELAY TO BE CAUSE OF PROBLEM. CHANGED RELAY AND SECOND STARTER GENERATOR, AIRCRAFT RETURNED TO SERVICE.								
2800	5736D	BELL				SEAL	LEAKING		11/19/97
HEEA	31135	212				811091	FUEL SYS		HEEA0012094
	SEAL LEAKING.								
5280	5736D	BELL				DOOR ASSY	SEPARATED		11/19/97
HEEA	31135	212				212030348003	NLG		HEEA0012065
	NLG DOOR ASSY SEPARATED BEYOND REPAIR.								
6220		BELL				DAMPER ASSY	LEAKING		11/19/97
HEEA		212				204010937009	M/R		HEEA0012089
	DAMPER ASSY HAS LOW FLUID.								
2121	6957Y	BELL				BLOWER	FAILED		11/19/97
HEEA	28139	214ST				214073917101	CABIN		HEEA0012100
	S/N 575 VERY LOUD AND VIBRATES BADLY. S/N 206 INOPERATIVE. SENT T								
2437	3897N	BELL				INDICATOR	FAILED		11/19/97
HEEA	28106	214ST				214175250103	COCKPIT		HEEA0012081
	INDICATOR READS 5% HIGH.								

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2730	6957Y	BELL				ACTUATOR ASSY	FAILED		11/19/97
HEEA	28139	214ST				214001970107	ELEV		HEEA0012102
	ACTUATOR KICKING OFF LINE AT 80 KTS.								
6330	8045T	BELL				CLEVIS ARM ASSY	SEPARATED		11/19/97
HEEA	28101	214ST				214031615106	M/R XMSN		HEEA0012090
	CLEVIS ARM ASSY RUBBER SEPARATED.								
6720	5748M	BELL				ACTUATOR ASSY	FAILED		11/19/97
HEEA	28102	214ST				214001540111	YAW CHANNEL		HEEA0012097
	ACTUATOR ASSY YAW CHANNEL TRIPS IN FLIGHT.								
7714	3897N	BELL				INDICATOR	FAILED		11/19/97
HEEA	28106	214ST				214175251103	TRIPLE TACH		HEEA0012099
	TRIPLE TACH INDICATOR READS HIGH.								
6220	437AL	BELL				DAMPER ASSY	DETERIORATED	58	10/23/97
ALGR	53141	407				407010150101A	M/R		97ZZZX4909
	DAILY INSPECTION FOUND FRAHM DAMPER ASSY RUBBER DETERIORATING AND STICKING OUT OF DAMPER.								
6420	407PH	BELL				HUB	DAMAGED	1783	11/21/97
HEEA	53003	407				407012101105	T/R		HEEA0012120
	T/R HUB AND BLADE SUSPECT POSSIBLE CONTACT WITH STATIC STOP.								
6500	437AL	BELL				MAST NUT	LOOSE		9/30/97
ALGR	53141	407			407012100101	406017113101	T/R		97ZZZX4906
	DAILY INSPECTION FOUND COMPLETE LOSS OF TORQUE ON T/R MAST NUT. THE NUT COULD BE REMOVED BY HAND. THE SAFETY WIRE BETWEEN THE NUT AND THE SUPPORT, (P/N 407-012-106-103) KEPT THE NUT FROM SPINNING OFF OF THE TAIL ROTOR GEARBOX OUTPUT SHAFT.								
6510	407AL	BELL				DISC	CRACKED		9/30/97
ALGR	53044	407				406040340101	T/R DRIVE		97ZZZX4900
	DAILY INSPECTION AND C/W NOTAM NR 51A-97, FOUND DISC CRACKED. ON NR 7 DISC ASSEMBLY, NR 7 DISC OF THE PACK - 1 DISC ONLY.								
6510	407AL	BELL				COUPLING	CRACKED		10/14/97
ALGR	53044	407				406040340101	T/R D/S COUPLING		97ZZZX4901
	DAILY INSPECTION FOUND NR 7 TAIL ROTOR DRIVESHAFT COUPLING, NR 10 DISC ON PACK CRACKED.								
6510	417AL	BELL				DISC PACK	CRACKED		9/30/97
ALGR	53054	407				406040340101	NR 7 T/R CPLNG		97ZZZX4902
	DAILY CHECK NOTAM 51A-97 OCCURRED DURING NORMAL FLIGHT, FOUND NR 7 COUPLING CRACKED 2 LAMINATES NR 1 AND NR 2 PACK HAS TEN DISCS.								
6510	417AL	BELL				BEARING	ROUGH	634	9/30/97
ALGR	53054	407			406040320101	406040339105	T/R DRIVE		97ZZZX4903
	NR 2 SHAFT REMOVED FROM AIRCRAFT DUE TO ROUGH BEARING. FOUND BEARING 406-040-339-105 INSTALLED AT AIRCRAFT HOURS 808.0 HOURS ROUGH. ALSO, SHAFT 406-040-320-101, TT 1410.8 HOURS. FORWARD SPLINES WORN AND CORRODED BEYOND LIMITS.								
6510	437AL	BELL				DISC PAK	CRACKED		9/24/96
ALGR	53141	407				406040340101	T/R DISC PAK		97ZZZX4908
	SCHEDULED INSPECTION, T/R DRIVE DISC FOUND CRACKED AND SCRATCHED. REMOVED AND REPLACED.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6510	437AL	BELL				DISC	CRACKED		9/24/97
ALGR	53141	407				406040340101	T/R DISC PACK		97ZZZX4907
	SCHEDULED INSPECTION FOUND DISC CRACKED.								
6510	437AL	BELL				DISC	CRACKED		9/9/97
ALGR	53141	407			407040302101	406040340101	T/R DRIVE		97ZZZX4905
	DURING DAILY INSPECTION, FOUND T/R DRIVE DISC HAS CRACK STARTING ON INSIDE DIAMETER GOING TOWARDS OUTSIDE DIAMETER, NR 1 DISC (FIRST ON PACK).								
6510	437AL	BELL				DISC PACK	CRACKED		11/2/97
ALGR	53141	407				406040340101	T/R SHAFT		97ZZZX4904
	ON 50-HOUR P.M.I., AND AD 97-22-15, FOUND NR 10 OF 10 DISC CRACKED IN 2 PLACES.								
6510	437AL	BELL				DISC PACK	CRACKED	58	10/13/97
ALGA	53141	407			407040302101	406040340101	T/R DRIVE SHAFT		97ZZZX4932
	DAILY VISUAL INSPECTION OF TAILBOOM IAW NOTAM NR 51A-97, NR 5 TO NR 6 DISC PACK (T/R D/S) ASSEMBLY. ONLY ONE DISC FOUND CRACKED IN THE NR 10 POSITION OUT OF 10 DISCS. 57.8 HOURS TOTAL TIME ON DISC PACK FROM LAST CRACKED DISC.								
6510	437AL	BELL				DISC PACK	CRACKED		10/29/97
ALGR	53141	407				406040340101	T/R SHAFT		97ZZZX4910
	DURING 50-HOUR PMI AND MAINTENANCE NOTAM NR 51B-97, FOUND NR 1 DISC IN PACK ASSEMBLY OF 10 DISC TOTAL, CRACKED IN TWO PLACES.								
2210	1202T	BELL				TARSYN	FAILED		11/19/97
HEEA	33112	412				2593996333	AUTO FLIGHT		HEEA0012104
	TARSYS UNIT FAILED TEST 8.5 ON SST BENCH. TIME SINCE REPAIR 0:00.								
2210	108X	BELL				CONTROL	DEFECTIVE		11/19/97
HEEA	33115	412				7000299901	AUTO PILOT		HEEA0012086
	AUTO PILOT CONTROL PIN J2 PUSHED BACK.								
2210	22347	BELL				TARSYN	FAILED		11/19/97
HEEA	36005	412				2593996333	AUTO FLIGHT		HEEA0012103
	TARSYN TAKES 30 MINUTES TO SPOOL UP.								
2211	1202T	BELL				FZ702 COMPUTER	FAILED		11/19/97
HEEA	33112	412				4033089901	AUTO FLT		HEEA0012068
	WITH FK DIRECTION ENGAGED IN ILS APPROACH, AIRCRAFT HAS A STEADY ROCK AND ROLL. SENT								
2822	141PH	BELL				PUMP	FAILED		11/19/97
HEEA	33197	412				205060606003	FUEL BOOST		HEEA0012064
	PUMP CAUTION LIGHT CAME ON.								
2840	108X	BELL				SWITCH	LEAKING		11/19/97
HEEA	33115	412				1103P262	FUEL PRESS		HEEA0012105
	PRESSURE SWITCH LEAKING. S/N 3280 & 0083								
5260	293CA	BELL				ACTUATOR	FAILED		11/19/97
HEEA		412				SYLC502283	STEP		HEEA0012093
	STEP ACTUATOR VERY SLOW AND WEAK.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
5260	22347	BELL				ACTUATOR	FAILED		11/19/97
HEEA	36005	412				212075418103	STEP		HEEA0012069
	STEP ACTUATOR WILL NO LONGER ACTUATE.								
6520	2148K	BELL				SLEEVE ASSY	CORRODED		11/19/97
HEEA	36001	412			212040004009	212040452001	T/R GR BOX		HEEA0012115
	SLEEVE ASSY HAS CORROSION ON O'RING GROOVE. REPLACED WITH SERVICEABLE SLEEVE.								
6520	2148K	BELL				CASE ASSY	CORRODED		11/19/97
HEEA	36001	412			212040004009	212040468001	T/R GR BOX		HEEA0012114
	CASE ASSY HAS EXCESSIVE CORROSION AT O'RING GROOVE AND LUGS. REPLACED WITH SERVICEABLE CASE.								
6710	6559Z	BELL				ACTUATOR	FAILED		11/19/97
HEEA	36019	412				204060762103	M/R		HEEA0012077
	ACTUATOR SLOW TO REACT (BINDING).								
6720	2261D	BELL				LEVER ASSY	PITTED		11/19/97
HEEA	33076	412				204001757005	T/R CONTROL		HEEA0012062
	LEVER ASSY PITTED IN AREA.								
7250	33008	BELL	PWA			POWER SECTION	FAILED	16281	11/13/97
HEEA	36004	412	PT6T3B			3017600	ENGINE		HEEA0011988
	ENGINE COMPRESSOR STALLS. SENT TO PRATT AND WHITNEY FOR EXCHANGE.								
7322	6559Z	BELL				FUEL CONTROL	LEAKING	10933	11/19/97
HEEA	36019	412				324473512	ENGINE		HEEA0012116
	FUEL CONTROL LEAKING THROUGH WEEP HOLE AT BOTTOM OF FUEL CONTROL. REPLACED WITH SERVICEABLE FUEL CONTROL.								
7712	33008	BELL				INDICATOR	STICKS		11/19/97
HEEA	36004	412				412075008111	NR 2 TORQUE		HEEA0012083
	NR2 NEEDLE STICKS AT 30% INTERMITTENTLY.								
7722	2258F	BELL				INDICATOR	FAILED		11/19/97
HEEA	33073	412				212075067109	COCKPIT ITT		HEEA0012101
	ITT INDICATOR READS ZERO ALL OF THE TIME.								
7722	107X	BELL				TRIM COMPENSATOR	FAILED		11/19/97
HEEA	33113	412				3030083	ENGINE		HEEA0012079
	TRIM COMPENSATOR READS 200 DEG COOLER THAN ACTUAL.								
6520	73953	BELL				CASE	CORRODED	2292	11/16/97
	2866	47G2A1			476400751	4764521215	T/R GEARBOX	831	97ZZZX4933
*****	WHILE TROUBLESHOOTING FOR A LOOSE TAIL ROTOR GUARD IN TAIL ROTOR GEARBOX HOUSING, PULLED THE GUARD OUT OF THE GEARBOX AND FOUND FERTILIZER PACKED INTO CAVITY. WHILE SCRAPING FERTILIZER OUT OF CAVITY, FOUND CORROSION HAD EATEN THROUGH MAGNESIUM HOUSING. THE PACKED FERTILIZER WAS KEEPING THE OIL FROM LEAKING OUT.								
2312	911PF	BOLKMS				TRANSCEIVER	WEAK		11/19/97
HEEA	S718	BO105S			RT406F	40001278501	COCKPIT		HEEA0012075
	-30DB WEAK RECEIVER SENSITIVITY AT TURN ON.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2910	107AL	BOLKMS				WIRING HARNESS	FAILED		11/1/97
ALGA	S772	BO105S			10545028	112194400	HYD PACK		97ZZZX4899
	IN-FLIGHT, HYDRAULIC BLOCK ILLUMINATED; SYSTEM SWITCHED TO NR 2 HYDRAULIC SYSTEM. RETURNED TO BASE WITHOUT INSTALLED NEW HARNESS.								
3452	911FL	BOLKMS				TRANSPONDER	FAILED		11/19/97
HEEA	S717	BO105S			KT76	066106200	COCKPIT ATC		HEEA0012111
	TRANSPONDER INTERMITTENT, DROPPING OFF WITH ATC. PERFORMED PRELIMINARY INSPECTION AND FOUND RECEIVER DROPPING OFF LINE. REPLACED CR202 MIXER DIODE. REPAIRED. ADJUSTED PULSE WIDTH AND FREQUENCY. BENCH CHECK GOOD.								
6240	5029H	BOLKMS				INDICATOR	FAILED		11/19/97
HEEA	S670	BO105S				10594564	MAST MOMENT		HEEA0012084
	MAST MOMENT INDICATOR INOPERATIVE.								
6240	5029H	BOLKMS				TRANSMITTER	FAILED		11/19/97
HEEA	S670	BO105S				10594575	MAST MOMENT		HEEA0012085
	TORQUE TRANSMITTER INOPERATIVE.								
6240	50293	BOLKMS				RPM WARNING BOX	INTERMITTENT		11/19/97
HEEA	S677	BO105S				KDW021	ROTOR RPM		HEEA0012067
	RPM WARN BOX COMES ON INTERMITTENTLY.								
6240	724MB	BOLKMS				RPM WARNING BOX	INTERMITTENT		11/19/97
HEEA	S756	BO105S				KDW021A	ROTOR RPM		HEEA0012070
	RPM WARN BOX INTERMITTENT OPERATION.								
6320	724MB	BOLKMS				TRANSMISSION	SPALLED	3392	11/19/97
HEEA	S756	BO105S				4638001004	M/R GR BOX		HEEA0012117
	TRANSMISSION BEVEL GEARS HAVE EXCESSIVE SPALLING ON S/N 2195 AND MINOR ON S/N 2310 T.T. 3392:45 (TOOTH FAILURE) PINION S/N 3142, T.T. 353:20 SPALLING ON TOOTH (ROOT AREA) EXCESSIVE DENTS ON BEARINGS 2 EACH 4638303081, T.T. UNKNOWN AND 1 EACH 4638302025, S/NNR3089, T.T. UNKNOWN AND 1 EACH 4638302023, S/N 2353, T.T. 353:20 AND 1 EACH 4619303085, T.T. UNKNOWN. REPLACED WITH SERVICEABLE PARTS.								
6410	5352Y	BOLKMS				BLADE	ERODED	961	10/8/97
AC2R	S781	BO105S				10531980	T/R		97ZZZX4897
	PAINT PEELING AT LEADING EDGE ERODED INTO POLY STRIP AND FIBERGLASS WEBBING. THESE TWO BLADES REPAIRED JUNE 18, 1997. TOTAL TIME ON BLADES 647.9 HOURS.								
6410	5352Y	BOLKMS				BLADE	ERODED	961	10/8/97
AC2R	S781	BO105S				10531980	T/R		97ZZZX4896
	PAINT PEELING AT LEADING EDGE ERODED INTO POLY STRIP AND FIBERGLASS WEBBING. THESE TWO BLADES REPAIRED JUNE 18, 1997. TOTAL TIME ON BLADES 647.9 HOURS.								
7120	911EB	BOLKMS				BUSHING	SEPARATED		11/19/97
HEEA	S812	BO105S				10560386	ENGINE MT		HEEA0012118
	INNER BUSHING SEPARATED FROM RUBBER. REPLACED WITH SERVICEABLE PART.								
7310	9190Y	BOLKMS	ALLSN			PIPE	STRIPPED		11/19/97
HEEA	S669	BO105S	250C20			10561320	ENGINE		HEEA0012092
	CONNECTING PIPE CORRODED AND STRIPPED OUT.								
7412	624MB	BOLKMS				IGNITER BOX	FAILED		11/19/97
HEEA	S751	BO105S				106149501	ENG IGNITION		HEEA0012066
	IGNITER BOX BROKEN INSULATION AT CONNECTING POINT.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7930	3533T	BOLKMS				INDICATOR	FAILED		11/10/97
HEEA	S111	BO105S			174000101	1740352	ENG OIL		HEEA0011918
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	3526T	BOLKMS				INDICATOR	FAILED		11/10/97
HEEA	S610	BO105S			174000103	174035201	ENG OIL		HEEA0011904
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	3526T	BOLKMS				INDICATOR	FAILED		11/10/97
HEEA	S610	BO105S			174000101	1740352	ENG OIL		HEEA0011915
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	54197	BOLKMS				INDICATOR	FAILED		11/10/97
HEEA	S805	BO105S			174000103	174035201	ENG OIL		HEEA0011906
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	7170D	BOLKMS				INDICATOR	FAILED		11/10/97
HEEA	S840	BO105S			174000103	174035201	ENG OIL		HEEA0011902
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
3310	401PH	BOLKMS				CONTROL UNIT	FAILED		11/19/97
HEEA	7050	BK117A3				1179203103	COCKPIT		HEEA0012080
	CONTROL POPS CIRCUIT BREAKER.								
2810	5027P	HUGHES				TANK	COLLAPSED	2	11/16/97
LS1R	611002D	369D				37510007	AUX FUEL		97ZZZX4970
*****	AUXILIARY FUEL TANK COLLAPSED DUE TO VACUUM FROM FUEL TRANSFER TO MAIN TANK. UPON INVESTIGATION, FOUND MASKING TAPE WAS PLUGGING THE VENT STANDPIPE APPARENTLY TO PREVENT PAINT FROM ENTERING THE VENT TUBE WHEN THE TANK WAS PAINTED BY THE MANUFACTURER. AIRCRAFT WAS LANDED WITHOUT INCIDENT.								
6710	4503E	SKRSKY				SPRING	BROKEN		11/13/97
	61220	S61N			6165020300	S616520262	COLLAR ASSY	798	97ZZZX4931
*****	DURING NORMAL CROSS-COUNTRY FLIGHT, THE PILOT FELT A FIRM LATERAL PRESSURE IN THE CYCLIC FLIGHT CONTROL SYSTEM. A PRECAUTIONARY LANDING WAS MADE AND INSPECTION FOUND A BROKEN 'BOOT STRAP' SPRING. IT BROKE AT THE OPEN LOOPED END WHERE IT IS INSERTED INTO THE COLLAR ASSY. THE SPRING WAS REPLACED WITHOUT FURTHER INCIDENT.								
2611	31219	SKRSKY				SMOKE DETECTOR	FAILED		11/19/97
HEEA	760230	S76A				302317B	DETECTOR BULB		HEEA0012076
	SMOKE DET WILL NOT TEST BULBS.								
2844	1545K	SKRSKY				TRANSMITTER	ERRATIC		11/19/97
HEEA	760047	S76A				7645001078119	FUEL SYS		HEEA0012106
	PRESSURE ERRATIC AND FLUCTUATES INTERMITTENTLY.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3230	741SW	SKRSKY				JURY BRACE	FAILED		10/13/97
ALGR	760070	S76A			1945E175A02	1945E72A02	RT GEAR		97ZZZX4911
	DURING LANDING CHECK, THE RIGHT MAIN LANDING GEAR FAILED TO LOCK DOWN. AFTER RECYCLING THE LANDING GEAR, THE PROBLEM REMAINED. RETURNED TO BASE. FOUND RIGHT HAND JURY BRACE BROKEN. REPLACED BRACE AND SWUNG GEAR. OPS CHECK GOOD. RETURNED TO SERVICE AT 1,745 HOURS.								
3444	1546G	SKRSKY				TRANSCEIVER	FAILED		10/22/97
HEEA	760076	S76A				7001840903	COCKPIT		HEEA0011647
	TRANSCEIVER FAILED 4.1 CHECK TEST ON SST BENCH (LED 50 REMAINS ON).								
3450	22342	SKRSKY				CONTROL BOX	DEFECTIVE		11/19/97
HEEA	760096	S76A				071121004	COCKPIT		HEEA0012112
	CONTROL BOX KNOB MISSING. PERFORMED PRELIMINARY INSPECTION AND FOUND KNOB MISSING. REPLACED KNOB P/N 073-0554-04. ALSO REPLACED V301 PHOTOCELL P/N 134-05005-0002. REPAIRED. BENCH CHECK GOOD.								
3450	22342	SKRSKY				CONTROL	FAILED		11/19/97
HEEA	760096	S76A				071121627	NR 1 NAV		HEEA0012113
	NR1 NAV FREQUENCY DISPLAY GOES OFF AND ON. PERFORMED PRELIMINARY INSPECTION AND FOUND DISPLAY DIM. REPLACED V101 PHOTOCELL. REPAIRED. BENCH CHECK GOOD.								
6320		SKRSKY				UPPER HOUSING	FLAWED		11/19/97
HEEA		S76A				7635109002048	M/R GR BOX		HEEA0012088
	UPPER HOUSING CASTING FLAW.								
7930	4253S	SKRSKY				INDICATOR	FAILED		11/10/97
HEEA	760035	S76A			174000103	174035201	ENG OIL		HEEA0011916
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	1546G	SKRSKY				INDICATOR	FAILED		11/10/97
HEEA	760076	S76A			174000103	174035201	ENG OIL		HEEA0011922
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	1547D	SKRSKY				INDICATOR	FAILED		11/10/97
HEEA	760077	S76A			174000103	174035201	ENG OIL		HEEA0011914
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	1546K	SKRSKY				INDICATOR	FAILED		11/10/97
HEEA	760082	S76A			174000103	174035201	ENG OIL		HEEA0011901
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								
7930	1546K	SKRSKY				INDICATOR	FAILED		11/10/97
HEEA	760082	S76A			174000103	174035201	ENG OIL		HEEA0011900
	INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7930	5435V	SKRSKY				INDICATOR	FAILED		11/10/97
HEEA	760158	S76A			174000103	174035201	ENG OIL		HEEA0011898

INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DID NOT WORK. SCRAPPED INDICATOR AND REPLACED WITH SERVICEABLE PART.

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - ENGINES

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8510	61DM	AMTRDF	ROTAX			RING GEAR	FAILED	185	5/1/97
	606	KITFOX	ROTAX582			834050	ENG STARTER		97ZZZX4961
	PRE-FLIGHT INSPECTION FOUND METAL FILINGS AROUND STARTER. FURTHER INSP REVEALED A LARGE CRACK NEAR A BOLT HOLE ON THE STARTER RING GEAR THAT WAS SEPARATED BY .125 INCH. SMALLER CRACKS WERE NOTED EMANATING FROM OTHER BOLT HOLES. REASON FOR THE CRACKING IS UNKNOWN, HOWEVER, IT HAS BEEN LEARNED THIS IS NOT AN ISOLATED CASE IN THE OLDER ROTAX 582 ENGINES WITH THIS TYPE STARTER. APPARENTLY, SERVICE BULLETIN WAS PUBLISHED TO REPLACE THESE RING GEARS WITH A HEAVIER BUILT UNIT, HOWEVER, THAT SB WAS NOT AVAILABLE TO THE AUTHOR. THIS RING GEAR WAS ON THE VERGE OF COMPLETE SEPARATION. SUBMITTER RECOMMENDS ALL OWNERS OF ROTAX 582/532 ENGINES PRODUCED PRIOR TO 1994 HAVE A VERY CLOSE LOOK AT THE STARTER RING GEAR.								
7210	58HJ	BELL	LYC			LOCKCUP	CRACKED		11/13/97
ZP3R	30314	205A1	T5317A		103035012	103019501	OUTPUT GEARBOX	1745	97ZZZX4895
	FOLLOWING DISASSEMBLY OF ENGINE FOR METAL CONTAMINATION, DISCOVERED 2 EACH OF THE LOCKCUPS HAD FAILED. CUPS CRACKED AND SPLIT AT THE LOCKING TANGS WHICH ENGAGE THE PLANETARY GEARSHAFTS. THE RETAINING NUTS WHICH THE LOCKCUPS RETAIN, REMAINED IN PLACE AND THE PIECES OF THE LOCKCUPS WERE FOUND IN THE SCAVENGE SCREEN OF THE ACCESSORY DRIVE GEARBOX AND LAYING IN THE OUTPUT REDUCTION GEARBOX.								
7314	2269A	BELL	ALLSN			FUEL PUMP	LEAKING	9525	11/19/97
HEEA	3608	206B3	250C20B			5002395D	SEAL DRAIN		HEEA0012098
	FUEL LEAKING FROM SEAL DRAIN.								
7250	33008	BELL	PWA			POWER SECTION	FAILED	16281	11/13/97
HEEA	36004	412	PT6T3B			3017600	ENGINE		HEEA0011988
	ENGINE COMPRESSOR STALLS. SENT TO PRATT AND WHITNEY FOR EXCHANGE.								
7322	6559Z	BELL				FUEL CONTROL	LEAKING	10933	11/19/97
HEEA	36019	412				324473512	ENGINE		HEEA0012116
	FUEL CONTROL LEAKING THROUGH WEEP HOLE AT BOTTOM OF FUEL CONTROL. REPLACED WITH SERVICEABLE FUEL CONTROL.								
7310	9190Y	BOLKMS	ALLSN			PIPE	STRIPPED		11/19/97
HEEA	S669	BO105S	250C20			10561320	ENGINE		HEEA0012092
	CONNECTING PIPE CORRODED AND STRIPPED OUT.								
7412	624MB	BOLKMS				IGNITER BOX	FAILED		11/19/97
HEEA	S751	BO105S				106149501	ENG IGNITION		HEEA0012066
	IGNITER BOX BROKEN INSULATION AT CONNECTING POINT.								
8530	64874	CESSNA	LYC			PISTON	FAILED	985	11/8/97
	15281457	152	O235L2C			LW13623	CYLINDER NR 1		97ZZZX4879
	INSPECTION FOUND HALF OF PISTON SKIRT BROKEN AWAY AND MISSING FROM BOTTOM RING GROOVE TO JUST BEFORE EACH PISTON PIN BOSS. OWNER HAD REPORTED AN INCREASE IN OIL COMSUMPTION. VISUAL INSPECTION OF ENGINE WAS OK. CYLINDER COMP ALL CHECKED 70 OVER 80 OR BETTER. OIL CHANGE WAS NOT DUE FOR ANOTHER 25 HOURS. BOTTOM SPARK PLUGS SHOWED ONLY VERY LITTLE OIL DAMPNESS ON CYLINDER NR 1. HOWEVER, A 'POP' COULD BE HEARD DURING THE COMP CHECK OF CYLINDER NR 1 JUST AS THE PISTON PAST TDC (IT SOUNDED SIMILAR TO THE MAG IMPULSE). FURTHER CHECKS FOUND THE OIL QUICK DRAIN HARD TO OPERATE (PLUGGED WITH DEBRIS) AND, OF COURSE, THE OIL FILTER CONTAMINATED.								
7322		CESSNA	LYC			NUT	MISSING		11/11/97
		172N	O360A4M				CARBURETOR MOUN	291	97ZZZX4952
	ALL FOUR NUTS, FLAT AND LOCK WASHERS, WERE DISCOVERED MISSING FROM THE FOUR STUDS ON THE INTAKE MANIFOLD THAT THE CARBURETOR IS MOUNTED ON. PROBLEM DISCOVERED WHEN ENGINE FAILED ON LANDING AND WOULD NOT RESTART. CURRENT COMBINATION OF NUT, LOCK WASHER AND FLAT WASHER IS NOT SUFFICIENT TO WITHSTAND ENGINE VIBRATION. SUBMITTER RECOMMENDS PERIODIC TORQUE CHECKS OR DIFFERENT LOCKING DEVICE.								

******* DENOTES SIGNIFICANT OCCURRENCE**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8530	9773B	CESSNA	LYC			PISTON RING	FAILED		11/20/97
GYWR	172RG1027	172RG	O360F1A6			CC20B	NR 1 CYLINDER	854	97ZZZX4964
	EXCESSIVE OIL OUT OF ENGINE BREATHER PROMPTED ENGINE COMPRESSION CHECK WHICH REVEALED LOW COMPRESSION ON NR 1 CYLINDER. REMOVAL OF CYLINDER REVEALED TOP COMPRESSION RING SHATTERED INTO APPROX .25 INCH SEGMENTS AND SECOND COMPRESSION RING BROKEN IN SEVERAL PLACES. OIL RING FOUND STUCK IN GROOVE. PISTON WAS DAMAGED IN RING GROOVES, BUT CYLINDER SHOWED NO SIGN (VISUAL OR DIMENSIONAL) OF DAMAGE. ADJACENT CYLINDER WAS REMOVED FOR INSPECTION, BUT NO DEFECTS WERE FOUND. NO APPARENT OR OBVIOUS CAUSE NOTED OR DETECTED.								
7414	42818	CESSNA	CONT		SLICK	POINTS	WEAK	613	11/1/97
FE6R	18259203	182L	O470R			M3081	MAG		97ZZZX4872
	FOUND POINTS WITH VERY LOW SPRING TENSION. CAUSED ENGINE TO RUN ROUGH AND QUIT IN FLIGHT AT HIGHER RPM'S.								
8530	3235S	CESSNA	CONT			PISTON	CRACKED	1277	11/14/97
	18255735	182G	O470R			626992	PIN BOSS		97ZZZX4959
	SIX ENGINE PISTONS FOUND CRACKED IN PISTON PIN BOSS. CRACKS WERE ALL IN SAME AREA, UPPER PIN BOSS RUNNING PARALLEL TO PISTON PIN. ONE PISTON HAD LOST ONE-FOURTH OF THE CASTING AROUND PIN. THIS CONDITION DID NOT CAUSE ANY OPERATIONAL PROBLEMS. JUDGING FROM CARBON CONDITION, HAD EXISTED SOME TIME. THIS PISTON IS SAME DESIGN AS SA626992 WHICH IS COVERED BY AD96-12-04.								
8550		CESSNA	CONT			BYPASS SPRING	FAILED		11/1/97
		210	IO520L				OIL FILTER ADAPT		97ZZZX4949
	OIL FILTER BYPASS SPRING FOUND BROKEN AND DISC FOUND UNDER ENGINE OIL PRESSURE VALVE. ENGINE HAD NO OIL PRESSURE AFTER START-UP. BYPASS DISC FOUND UNDER ENGINE OIL PRESSURE RELIEF VALVE PREVENTING ENGINE FROM DEVELOPING ANY PRESSURE.								
8520	747PB	CESSNA	CONT			CONNECTING ROD	FAILED	622	11/3/97
	414A1006	414A	TSIO520NB				NR 6 CYLINDER		97ZZZX4891
	PILOT REPORTED NR 2 ENGINE BEGAN RUNNING ROUGH, THEN FAILED TOTALLY. SUCCESSFUL SINGLE ENGINE LANDING AT SUS. REMOVED COWLING, FOUND NR 6 CYLINDER CONNECTING ROD FAILED WHICH PENETRATED CRANKCASE DESTROYING ENGINE.								
7414	40024	PIPER	LYC			DISTRIBUTOR GEAR	FAILED	2515	11/13/97
UC2R	28R7737128	PA28R201	IO360C1C6		S4LN1227	10349234	ENG LT MAG	519	97ZZZX4878
	PILOT REPORTED ENGINE RUNNING VERY ROUGH DURING ROUTINE TRAINING FLIGHT. THE AIRCRAFT RETURNED TO THE AIRPORT AND MADE AN UNEVENTFUL LANDING. AN INSPECTION OF THE LEFT MAGNETO WAS PERFORMED AND THE DISTRIBUTOR GEAR WAS FOUND TO HAVE SEVERAL MISSING TEETH AND WAS BROKEN INTO THREE SEPARATE PIECES.								
8520	3525B	PIPER	LYC			CRANKCASE	CRACKED		11/1/97
	317952121	PA31350	TIO540J2BD				NR 2 CYL BOSS	1440	97ZZZX4870
	DURING TROUBLESHOOTING OF OIL LEAK, A CRACK IN THE ENGINE CASE WAS DISCOVERED. CRACK RUNS FROM LIFTER OIL GALLEY 1 INCH FORWARD OF AND ABOVE NR 2 CYLINDER BOSS TO 9 O'CLOCK POSITION ON CYLINDER BOSS HOLE. A SECOND CRACK INSIDE THE CASE PARALLELS THE OUTER CASE CRACK EXCEPT IT STARTS AT THE UPPER FORWARD CYLINDER BASE STUD IN THE 11 O'CLOCK POSITION. THE TWO THRU-BOLTS AT REAR OF NR 2 CYLINDER WERE ALSO LOOSE IN THE CASE. CYLINDER NUTS WERE TIGHT.								
7414	914DC	PIPER	LYC		SLICK	MAGNETO	WORN	747	10/31/97
	4622127	PA46350P	TIO540AE2A			6263	ENG LT		97ZZZX4963
	PILOT REPORTED HIGH MAG DROP ON LEFT MAG. RUN-UP INDICATED NEARLY COMPLETE MAG FAILURE. DURING DISASSEMBLY, A LARGE AMOUNT OF DUST WAS NOTED IN THE AREA OF THE CONTACT ASSEMBLY AND CONTACTS WERE BARELY OPENING. THE CAM WAS FOUND SEVERELY WORN. NO REASON FOR THE UNUSUAL WEAR WAS NOTED.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - ENGINES)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6113		BEECH		HARTZL		BULKHEAD	CRACKED		2/1/96
		100BEECH		HCB3TN3		3064	PROP	1322	EY2R9600021
	INSPECTION FOUND THE PROP BULKHEAD CRACKED								
6122		BEECH				DRIVE GEAR	CRACKED		11/6/97
LU4R		35BEECH			D210680				97ZZZX4876
	INSPECTION FOUND GOVERNOR DRIVE GEAR CRACKED. INDICATION STARTED BETWEEN TEETH AND EXTENDED AROUND CORNER.								
2562	2270G	BELL			NARCO	ELT	FAILED		11/19/97
HEEA	3610	206B3				ELT910	COCKPIT		HEEA0012108
	ELT INOPERATIVE.								
2562	206LS	BELL			NARCO	ELT	FAILED		11/19/97
HEEA	51070	206L3				ELT910	COCKPIT		HEEA0012082
	ELT WOULD NOT TURN OFF.								
3421	515KA	BELL				SYNCHRO	BROKEN		11/19/97
HEEA	51048	206L3			KA15A	071105304	COCKPIT		HEEA0012073
	CASE BROKEN.								
3422	515KA	BELL				FLUX VALVE	ERROR		11/19/97
HEEA	51048	206L3			KFM112	071105200	COCKPIT DIR SYS		HEEA0012071
	FLUX VALVE 30 DEG OFF.								
3425	515KA	BELL				HSI	INTERMITTENT		11/19/97
HEEA	51048	206L3			KI525A	066304607	COCKPIT		HEEA0012074
	INDICATOR HEADING DATA INTERMITTENT. CRS DATA VOLTAGE HIGH PRECESSES ON NORTH HEADING.								
3452	50182	BELL				TRANSPONDER	FAILED		11/19/97
HEEA	45242	206L1			KT76	066106200	COCKPIT ATC		HEEA0012110
	TRANSPONDER DOES NOT SEND OUT A CODE. (NO POWER OUT AND PULSE WIDTH OUT OF SPECS)								
2210	1202T	BELL				TARSYN	FAILED		11/19/97
HEEA	33112	412				2593996333	AUTO FLIGHT		HEEA0012104
	TARSYS UNIT FAILED TEST 8.5 ON SST BENCH. TIME SINCE REPAIR 0:00.								
2210	108X	BELL				CONTROL	DEFECTIVE		11/19/97
HEEA	33115	412				7000299901	AUTO PILOT		HEEA0012086
	AUTO PILOT CONTROL PIN J2 PUSHED BACK.								
2210	22347	BELL				TARSYN	FAILED		11/19/97
HEEA	36005	412				2593996333	AUTO FLIGHT		HEEA0012103
	TARSYN TAKES 30 MINUTES TO SPOOL UP.								
2211	1202T	BELL				FZ702 COMPUTER	FAILED		11/19/97
HEEA	33112	412				4033089901	AUTO FLT		HEEA0012068
	WITH FK DIRECTION ENGAGED IN ILS APPROACH, AIRCRAFT HAS A STEADY ROCK AND ROLL. SENT								

******* DENOTES SIGNIFICANT OCCURRENCE**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2312	911PF	BOLKMS				TRANSCEIVER	WEAK		11/19/97
HEEA	S718	BO105S			RT406F	40001278501	COCKPIT		HEEA0012075
	-30DB WEAK RECEIVER SENSITIVITY AT TURN ON.								
3452	911FL	BOLKMS				TRANSPONDER	FAILED		11/19/97
HEEA	S717	BO105S			KT76	066106200	COCKPIT ATC		HEEA0012111
	TRANSPONDER INTERMITTENT, DROPPING OFF WITH ATC. PERFORMED PRELIMINARY INSPECTION AND FOUND RECEIVER DROPPING OFF LINE. REPLACED CR202 MIXER DIODE. REPAIRED. ADJUSTED PULSE WIDTH AND FREQUENCY. BENCH CHECK GOOD.								
3444	1546G	SKRSKY				TRANSCEIVER	FAILED		10/22/97
HEEA	760076	S76A				7001840903	COCKPIT		HEEA0011647
	TRANSCEIVER FAILED 4.1 CHECK TEST ON SST BENCH (LED 50 REMAINS ON).								
3450	22342	SKRSKY				CONTROL	FAILED		11/19/97
HEEA	760096	S76A				071121627	NR 1 NAV		HEEA0012113
	NR1 NAV FREQUENCY DISPLAY GOES OFF AND ON. PERFORMED PRELIMINARY INSPECTION AND FOUND DISPLAY DIM. REPLACED V101 PHOTOCELL. REPAIRED. BENCH CHECK GOOD.								
3450	22342	SKRSKY				CONTROL BOX	DEFECTIVE		11/19/97
HEEA	760096	S76A				071121004	COCKPIT		HEEA0012112
	CONTROL BOX KNOB MISSING. PERFORMED PRELIMINARY INSPECTION AND FOUND KNOB MISSING. REPLACED KNOB P/N 073-0554-04. ALSO REPLACED V301 PHOTOCELL P/N 134-05005-0002. REPAIRED. BENCH CHECK GOOD.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6110		AIRTRC		HARTZL		CLAMP	CRACKED		11/6/97
LU4R		AT502		HCB3TN3		13019S	PROPELLER		97ZZZX4948
	INSPECTION FOUND PROPELLER CLAMP CRACKED AT BOLT HOLE.								
6114		BEECH		HARTZL		CUP	CRACKED		2/1/96
		100BEECH		HCB3TN3		5976	SPRING RETAINER	1322	EY2R9600022
	INSP FOUND PROP SPRING RETAINER CUP CRACKED								
6114		BEECH		HARTZL		CUP	CRACKED		2/1/96
		100BEECH		HCB3TN3		5976	SPRING RETAINER	2053	EY2R9600023
	INSP FOUND PROP SPRING RETAINER CUP CRACKED								
6114		BEECH		MCAULY		HUB	CRACKED		3/1/96
		V35		2A36C23		C6447C23	PROP		EY2R9600031
	HUB CRACKED IN THREAD AREA								
6114		BEECH		MCAULY		HUB	CRACKED		4/1/96
		V35		2A36C23		C6447C23	PROP		EY2R9600045
	INSP FOUND HUB CRACKED								
6114		BEECH		MCAULY		HUB	CRACKED		4/1/96
		36BEECH		2A36C23		C2835C23	PROP		EY2R9600044
	INSP FOUND HUB CRACKED								
6112	110BA	BEECH			RAPCO	DEICE BOOT	FAILED	438	11/7/97
	LD279	65B80				RA129884	NR 1 PROPELLER		97ZZZX4957
	PROPELLER DEICE LEAD BREAK 12 INCHES FROM TERMINALS AFTER FOLLOWING NEW INSTALLATION INSTRUCTIONS.								
6114		BEECH		MCAULY		HUB	CRACKED		4/1/96
		95B55		2AF34C55		D4883C55	NR 2 SOCKET		EY2R9600046
	HUB CRACKED IN NR 2 SOCKET								
6114		BEECH		MCAULY		HUB	CRACKED		4/1/96
		95B55		2AF34C55		D4883C55	NR 2 SOCKET		EY2R9600047
	HUB CRACKED IN NR 2 SOCKET								
6114		CESSNA		MCAULY		HUB	CRACKED		3/1/96
		182E		D2A34C58		D5970C58	NR 1 SOCKET		EY2R9600034
	HUB CRACKED IN NR 1 SOCKET								
6114		CESSNA		MCAULY		HUB	CRACKED		3/1/96
		188CESSNA		D2A34C98		C4716C98	NR 1 SOCKET		EY2R9600035
	HUB CRACKED IN NR1 SOCKET								
6114		CESSNA		MCAULY		HUB	CRACKED		3/1/96
		188CESSNA		D2A34C98		C4716C98	NR 1 SOCKET		EY2R9600036
	HUB CRACKED IN NR 1 SOCKET								

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6114		CESSNA		MCAULY		HUB	CRACKED		3/1/96
		188CESSNA		D2A34C98		C4716C98	NR 2 SOCKET		EY2R9600038
	HUB CRACKED IN NR2 SOCKET, 7 O'CLOCK POSITION								
6114		CESSNA		MCAULY		HUB	CRACKED		3/1/96
		188CESSNA		D2A34C98		C4716C98	NR 1 SOCKET		EY2R9600037
	HUB CRACKED IN NR 1 SOCKET								
6114		CESSNA		MCAULY		HUB	CRACKED	800	8/5/97
	18802473T	A188B		D2A34C98		C98	NR 1 SOCKET		97ZZZX4873
*****	PROPELLER IN FOR RESEAL AND A CRACK WAS FOUND IN THE BLADE RETENTION THREADS OF NR 1 HUB SOCKET. THE CRACK HAD NOT YET GONE THROUGH THE HUB TO THE OUTSIDE.								
6114		CESSNA		MCAULY		HUB	CRACKED		3/1/96
		206CESSNA		D3A32C90		D5904C90	PROP		EY2R9600039
	INSP FOUND HUB CRACKED								
6111	3674Y	CESSNA		MCAULY		BLADE	CRACKED		9/30/97
RC2R	21058174	210C		D2A34C49		S90A	RETAIN THREAD	886	97ZZZX4881
	CRACK FOUND DURING PROPELLER DYE PENETRANT INSPECTION. CRACK PRESENT IN RETENTION THREAD.								
6114	3674Y	CESSNA		MCAULY		HUB	CRACKED		9/30/97
RC2R	21058174	210C		D2A34C49			MT FLANGE	886	97ZZZX4871
	PROPELLER INSPECTION FOUND 2 CRACKS DURING DYE PENETRANT INSPECTION. CRACKS APPEAR TO BEGIN FROM STUD HOLE AND PROGRESS OVER THE EDGE TO HUB MOUNTING FLANGE SURFACE.								
6114		CESSNA		MCAULY		HUB	CRACKED		3/1/96
		210K		E2A34C73		D5347C73	NR 1 SOCKET		EY2R9600042
	HUB CRACKED IN NR 1 SOCKET								
6114		CESSNA		MCAULY		HUB	CRACKED		3/1/96
		210K		D3AF32C80		D7037C80	BLADE SOCKET		EY2R9600041
	HUB CRACKED IN BLADE SOCKET								
6114		CESSNA		MCAULY		HUB	CRACKED		4/1/96
		310Q		3AF32C87		D7015C87	PROP		EY2R9600048
	INSP FOUND HUB CRACKED								
6114	2543S	CESSNA		MCAULY		HUB	CRACKED		11/11/97
	3370843	337C		D2AF34C61		D4885C61	NR 2 SOCKET		97ZZZX4868
*****	A CRACK WAS FOUND IN THE REAR OF BLADE SOCKET NR 2 DURING A DYE PENETRANT INSPECTION. THE HUB WAS RED TAGGED AND RETIRED FROM SERVICE. THE PROPELLER HAD BEEN IN SERVICE 3 YEARS SINCE LAST OVERHAUL AND AD 91-15-04 HAD BEEN C/W AT THAT TIME.								
6114		CESSNA		MCAULY		HUB	CRACKED		2/1/96
		340CESSNA		3AF32C87		D7015C87	THREADS		EY2R9600018
	HUB CRACKED IN THREADS								
6110		CESSNA		MCAULY		NUT	CRACKED		4/1/96
		402CESSNA		3AF32C87		C3475	PROP		EY2R9600049
	PROP ASSY NUT CRACKED IN THREAD AREA								

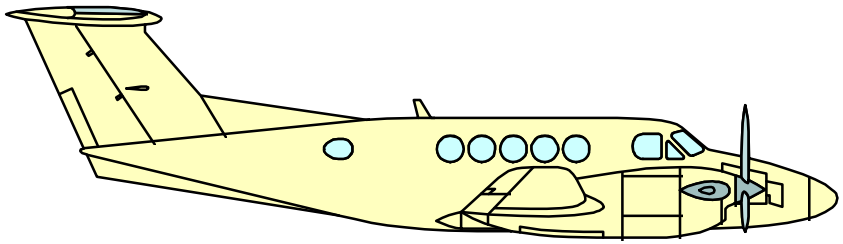
ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6114		CESSNA		MCAULY		HUB	CRACKED		3/1/96
		402CESSNA		3AF32C87		D7015C87	PROP		EY2R9600032
	HUB OUTER SURFACE CRACKED								
6114		CESSNA		MCAULY		HUB	CRACKED		3/1/96
		414		3AF32C93		D7015C93	PROP		EY2R9600033
	PILOT BORE FOR CRANKSHAFT CRACKED								
6114		CESSNA		MCAULY		HUB	CRACKED		4/1/96
		421B		3AF34C92		D7019C92	PROP		EY2R9600050
	INSP FOUND PROP HUB CRACKED								
6110		GULSTM		HARTZL		FORK	CRACKED		2/1/96
		500S		HCC3YR		3252	PITCH CONTROL		EY2R9600030
	PC FORK CRACKED IN RADIUS WHERE BLOCK SEATS								
6111		GULSTM		HARTZL		BLADE	CRACKED		3/1/96
		500RKWELL		HCA3VK2		8433A4	SHOULDER AREA		EY2R9600043
	BLADE SN B29226, CRACKED IN SHOULDER AREA								
6110		MTSBSI		HARTZL		BRACKET	CRACKED		2/1/96
		MU2*		HCB3TN5		30283	PROP HIGH STOP		EY2R9600029
	INSP FOUND HIGH STOP BRACKET CRACKED								
6110		MTSBSI		HARTZL		LINK ARM	CRACKED		2/1/96
		MU2*		HCB3TN5		1901	PROP		EY2R9600028
	INSP FOUND PROP LINK ARM CRACKED								
6111		MTSBSI		HARTZL		CLAMP	CRACKED		2/1/96
		MU2*		HCB3TN5		13019S	PROP		EY2R9600026
	INSP FOUND PROP CLAMP CRACKED								
6111	21CJ	MTSBSI		HARTZL		CLAMP	CRACKED	4642	10/29/97
	789SA	MU2B60		HCB4TN5		C1301	PROP NR 3 BLADE	2493	97ZZZX4893
	INSPECTION REPORT CONDUCTED BY HARTZELL PROPELLER INC., REVEALED CRACK IN PROPELLER BLADE CLAMP. SUSPECT CAUSE OF CRACK DUE TO FATIGUE.								
6111	21CJ	MTSBSI		HARTZL		CLAMP	CRACKED	4642	10/29/97
	789SA	MU2B60		HCB4TN5		C1301	PROP NR 4 BLADE	2493	97ZZZX4894
*****	INSPECTION REPORT CONDUCTED BY HARTZELL PROPELLER INC., REVEALED CRACK IN PROPELLER BLADE CLAMP. SUSPECT CAUSE OF CRACK DUE TO FATIGUE.								
6114		MTSBSI		HARTZL		PILOT TUBE	CRACKED		2/1/96
		MU2*		HCB3TN5		1891	PROP		EY2R9600027
	PILOT TUBE HAS LONGITUDINAL CRACKS								
6114		PIPER		HARTZL		HUB ARM	CRACKED		11/6/97
LU4R		PA23160		HC82VL2			PROPELLER	633	97ZZZX4877
	INSPECTION FOUND CRACK ON OUTSIDE RADIUS OF NR 1 HUB ARM APPROXIMATELY 1 INCH LONG.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6114		PIPER		HARTZL		PILOT TUBE	CRACKED		2/1/96
		PA31T		HCB3TN3		18916	PROP		EY2R9600025
	INSP FOUND PROP PILOT TUBE CRACKED								
6114		PIPER		HARTZL		PILOT TUBE	CRACKED		2/1/96
		PA31T		HCB3TN3		18912A	PROP		EY2R9600024
	INSP FOUND PROP PILOT TUBE CRACKED								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS)

INTERNATIONAL

SERVICE DIFFICULTY REPORT



ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2460		BEECH	PWA	MCAULY		DIODE	OPEN		9/8/94
		A100	PT6A28			70HF10	RT BUSS		CA940919009
	(CAN) RH OIL PRESSURE & TEMPERATURE FLUCTUATING IN CRUISE. IT THEN DROPPED TO ZERO. ON APPROACH GEAR WOULD NOT GO DOWN. MANUAL EXTENSION USED. INSP FOUND SEVERAL RH SYSTEMS, SUCH AS START CONTROL, TAXI LIGHT, BEACON NOT OPERATING. RH BUSS ISOLATION DIODE FOUND OPEN CIRCUITED.								
5521		BEECH	PWA	HARTZL	BEECH	RIB	CRACKED	10966	9/12/94
		100BEECH	PT6A28			115610010193	ELEVATOR LH		CA940919004
	(CAN) LH ELEVATOR INSP IAW 76-22-03. NOSE RIB FOUND CRACKED. REF. SI 799-133 REVISION II. BEECH KIT 10040051S INSTALLED.								
2432		BEECH	PWA	HARTZL		BATTERY	MALFUNCTION		2/19/97
		200BEECH	PT6A41	HCB3TN3			BATTERY/CHARGER		AU970161
	(AUS) BATTERY CHARGE LIGHT ILLUMINATED - BATTERY REMOVED TO BATTERY SHOP - INVESTIGATION COULD FIND NO FAULTS WITH THE BATTERY								
3242		BEECH	PWA			BRAKE DISC	FAILED		1/17/97
		B200C	PT6A42			101800213	BRAKE		AU970121
	(AUS) LH OUTBOARD BRAKE ROTATING DISC BROKEN - ONE SEGMENT CRACKED AND FELL OUT CAUSING MINOR DAMAGE TO WHEEL								
3242		BEECH	PWA			BRAKE DISC	FAILED		1/28/97
		B200C	PT6A42			101800213	RT OUTBRD		AU970122
	(AUS) RH OUTBOARD BRAKE DISC BROKEN - BROKEN PIECE OF DISC DAMAGED WHEEL ASSEMBLY AND BRAKE BACKPLATE - WHEEL JAMMED								
3260		BEECH	PWA			WIRES	DAMAGED		9/8/94
		200BEECH	PT6A41				RH MLG		CA940919007
	(CAN) NO INDICATION ON DOWN SELECTION FOR RH MLG. LDG GEAR OPERATING OK. WIRING AT MICROSWITCH HAD TORN AWAY AT SOLDERED CONNECTIONS. LDG GEAR HAD BEEN RERIGGED THE PREVIOUS NIGHT, THUS IT IS LIKELY THAT NOT ENOUGH SLACK HAD BEEN PROVIDED IN LOOM.								
5610		BEECH	PWA			WINDSHIELD	CRACKED		2/5/97
		B200C	PT6A42			10138402516	FLIGHT COMPART		AU970128
	(AUS) CO-PILOTS WINDSHIELD OUTER LAMINATION CRACKED IN TOP RH CORNER -WINDSHIELD WAS DELAMINATING PRIOR TO CRACKING (THE DELAMINATION WAS WITHIN MANUFACTURERS LIMITS)								
2460		BEECH	CONT	MCAULY		CONNECTOR	CORRODED		2/18/97
		A36	IO520B	3A32C76			DC POWER DISTRIB		AU970127
	(AUS) MAIN ALTERNATOR CABLE TO CURRENT LIMITER AND CURRENT LIMITER TO SHUNT AND MAIN AIRCRAFT DC BUSS CONNECTIONS CORRODED								
2432		BEECH	CONT	MCAULY		BATTERY	DISCHARGED		2/28/97
		D55	IO520C	3AF32C75			BATTERY/CHARGER		AU970170
	(AUS) BATTERY VOLTAGE LOW - SUSPECT CAUSED BY ALTERNATOR SWITCHES BEING IN THE `OFF' POSITION								
2910		BEECH				PIPE	CORRODED		2/27/97
		76				10558000121	HYDRAULIC, MAIN		AU970175
	(AUS) HYDRAULIC PIPE CORRODED - LOSS OF HYDRAULIC FLUID FROM PIN HOLE LEAK								
3260		BEECH	PWA	HARTZL		WIRE	BROKEN		9/13/94
		99	PT6A20				DOWN LOCK NLG		CA940923002
	(CAN) WIRE FOUND DETACHED FROM TB OF DOWN LOCK SYSTEM.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3213		BNORM	LYC		BNORM	RIVETS	SHEARED	1033	9/6/94
		BN2A	O540E4C5			NB40A1401	MLG SUPPORT TUBE		CA940919006
	(CAN) AFTER TAKEOFF PILOT NOTICED MAIN WHEELS AT 45 DEGREES ANGLE TO FUSELAGE. RIVETS SHEARED AT BOTTOM OF SUPPORT TUBE ASSEMBLY. THIS ALLOWED FITTING & PLUNGER TUBE ASSY TO DISLODGE FROM SUPPORT TUBE ASSY.								
6220		CAMAIR	ALLSN			BOLT	SHEARED		9/21/94
		480				SAP22658	MAIN ROTOR HEAD		CA940927010
	(CAN) THE BOLT WHICH HOLDS THE MAIN ROTOR DAMPER TO THE HEAD WAS FOUND SHEARED AT THE THREADS. THE NUT AND WASHER WERE MISSING. DURING A TORQUE CHECK OF THE REMAINING BOLTS, ONE MORE SHEARED AT THE SAME POINT.								
6420		CAMAIR	ALLSN			BEARING	WORN	147	8/24/94
		480				MS141029	TAIL ROTOR		CA940920029
	(CAN) UNABLE TO STROBE TAIL ROTOR. TAIL ROTOR REMOVED FOR STATIC BALANCE AND FOUND TRUNNION WITH PLAY IN IT DUE TO A WORN BEARING								
5521		CESSNA		MCAULY		ADAPTER	CORRODED		2/6/97
		172M		1C160DTM		07341023	ELEV SPAR/RIB		AU970156
	(AUS) LH AND RH ELEVATOR TORQUE TUBE ADAPTERS CONTAINED SEVERE CORROSION BETWEEN ADAPTERS AND INBOARD RIBS - FLANGES ON ADAPTERS CRACKED DUE TO CORROSION								
2434		CESSNA		MCAULY	FORD	ALTERNATOR	FAILED	235	8/23/94
		182Q		C2A34C204		DOFF10300B	DC SYS		CA940921006
	(CAN) ALTERNATOR NOT CHARGING ELECTRICAL SYSTEM. THIS WAS NOTICED WHEN BATTERY STARTED TO DRAIN AND RADIOS WEAKENED. ALTERNATOR REPLACED. VOLTAGE REGULATOR HAD ALSO BEEN REPLACED BUT THIS DID NOT HELP. REASON FOR ALTERNATOR FAILURE NOT ASSESSED YET.								
7110		CESSNA	CONT	MCAULY		COWLING	DAMAGED		2/21/97
		182A	O470R	2A34C66			ENGINE COWLINGS		AU970139
	(AUS) UNSECURED AND UNATTACHED UPPER AND LOWER ENGINE COWLINGS PICKED UP BY A GUST OF WIND AND BLOWN INTO PROPELLER ARC DURING ENGINE GROUND RUN - DAMAGE TO PROPELLER BLADES AND DESTRUCTION OF COWLS- ENGINE BULK STRIP TO BE CARRIED OUT								
3230		CESSNA	CONT	MCAULY	CESSNA	DOWNLOCK	CONTAMINATED		1/24/97
		210L	IO520L	D3A32C88	210L		GEAR RETRACT		AU970157
	(AUS) LH MAIN LANDING GEAR DOWNLOCK HOOK CONTAMINATED WITH DIRT AND GRIT - AIRCRAFT OPERATES FROM DIRT STRIPS								
3231		CESSNA	CONT	MCAULY	CESSNA	NUT	LOOSE		2/16/97
		210L	IO520L	D3A34C404	210L		LANDING GEAR DOO		AU970124
	(AUS) NOSE LANDING GEAR DOOR ACTUATING ROD JAM NUTS NOT TIGHTENED - PERSONNEL/MAINTENANCE ERROR								
3260		CESSNA	CONT	MCAULY	CESSNA	SWITCH	STUCK		2/4/97
		210L	IO520L	D3A34C404	210L	513771	LANDING GEAR POS		AU970131
	(AUS) NOSE LANDING GEAR DOWNLOCK MICROSWITCH STICKING DUE TO DIRT AND OIL CONTAMINATION								
3710		CESSNA	CONT	MCAULY		HOSE	DETERIORATED		2/18/97
		210N	IO520L	D3A34C404	S2501SERIES	B906	VACUUM DISTRIBUT		AU970173
	(AUS) VACUUM PUMP AIR HOSES DETERIORATED AND BREAKING UP INTERNALLY - FOUND DURING INSPECTION IAW CESSNA SEB 96-10								
3230		CESSNA	CONT		CESSNA	GEAR SWITCH	BENT		5/28/97
		337G	IO360G			15420291	SWITCH BRACKET		CA970722043
	(CAN) NOSE WHEEL RETRACTED AND COULD NOT BE EXTENDED DUE TO FAILURE OF THE SQUAT SWITCH BRACKET TO MAKE POSITIVE CONTACT WITH THE SWITCH. THE AIRCRAFT MADE A NOSE WHEEL GEAR UP LANDING.								

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5610		CESSNA	CONT	MCAULY		WINDOW	FAILED		2/6/97
		340A	TSIO520N	3AF32C93		531126110	FLIGHT COMPART		AU970168
	(AUS) COPILOTS WINDOW FAILED - WINDOW BLEW OUT DURING FLIGHT								
2530		CESSNA	PWA			WATER HEATER	FAILED		9/14/94
		550	JT15D4			80037123	CABIN		CA940921401
	(CAN) CREW NOTICED FUMES & ODOUR AROUND WATER HEATER. SYSTEM SELECTED OFF. WATER HEATER REMOVED. PLASTIC LID MELTED AND TANK EMPTY.								
2910		CESSNA	PWA			VALVE	SEIZED		1/3/97
		550	JT15D4			61510	HYDRAULIC, MAIN		AU970135
	(AUS) HYDRAULIC OPEN CENTRE BYPASS VALVE INTERNAL FAULT - VALVE INTERMITTENTLY SEIZED IN THE OPEN POSITION								
3040		DHAV	PWA			MOTOR	BURNT		9/8/94
		DHC6100	PT6A20			149786202	WIPER		CA940927002
	(CAN) SMOKE IN COCKPIT WINDSHIELD WIPER MOTOR BURNT OUT.								
2910		EMB	PWA	HARTZL		HYDRAULIC SYSTEM	CONTAMINATED		2/10/97
		EMB110P1	PT6A34	HCB3TN3			HYDRAULIC, MAIN		AU970136
	(AUS) LANDING GEAR HYDRAULIC SYSTEM CONTAMINATED WITH AIR								
2752		PILATS				ACTUATOR	NOISY		2/14/97
		PC12				9787320302	TE FLAP ACTUATOR		AU970129
	(AUS) FLAP ACTUATOR NOISY - FLAP SHUDDERING ON EXTENSION								
2710		PIPER	LYC		PIPER	BELLCRANK	CRACKED	6322	9/16/94
		PA12S	O290D2				AILERON		CA940926002
	(CAN) CRACK IN UPPER LEG OF PUSH-PULL ROD END ATTACH FITTING. CRACK FOUND WHILE APPLYING WITH AD 49-27-02. PART HAS SMALL RADIUS IN END OF FITTING. REPLACEMENT PART HAS A LARGE RADIUS.								
3230		PIPER	LYC			CIRCUIT BREAKER	TRIPPED		8/23/94
		PA24250	O540A1A				LDG GEAR		CA940923008
	(CAN) WHEN LDG GEAR SELECTED DOWN, CB POPPED. MANUAL EXTENSION USED. NO OTHER FAULT FOUND. CB REPLACED								
7922		PIPER	LYC	MCAULY		NUT	LOOSE		1/29/97
		PA25235	O540B2C5	1A200FA	VERNATHERM	75944	OIL TEMP VALVE		AU970112
	(AUS) THERMOSTATIC OIL COOLER BYPASS VALVE (VERNATHERM) NUT LOOSE								
2810		PIPER	LYC			FUEL TANK	CONTAMINATED		9/2/94
		PA28180	O360A3A			6399814	DRAIN		CA940921008
	(CAN) LH TANK FUEL DRAIN NOT WORKING. INSP FOUND A SOFT RUBBERY SUBSTANCE ON DRAIN VALVE WHEN IT WAS REMOVED. IT APPEARED TO BE SOFT PRC & IT HAD COLLECTED IN SUMP AREA COVERING DRAIN & OUTLET FITTING & SCREEN. TANK HAD A FILM OF MATERIAL ALL OVER THE INSIDE WHICH HAD SOFTENED & RUN TO LOW POINT. TANK HAD APPARENTLY BEEN "SLOSHED" IN 1971 BUT MATERIAL NOT IDENTIFIED.								
3233		PIPER	CONT	HARTZL		ACTUATOR	FAILED		1/27/97
		PA28R201T	TSIO360F	BHCC2YF2		3579705	LANDING GEAR ACT	3350	AU970140
	(AUS) NOSE LANDING GEAR HYDRAULIC ACTUATOR FAILED AT FUSELAGE ATTACHMENT POINT								
3260		PIPER		HARTZL		SWITCH	FAULTY		2/11/97
		PA31350		HCE3YR2		487862	LANDING GEAR POS		AU970123
	(AUS) LH MAIN LANDING GEAR SQUAT SWITCH FAULTY								

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3213		PIPER			PIPER	STRUT	CRACKED	715	7/11/94
		PA421000					MLG HOUSING		CA940919003
	(CAN) DURING SB 929 INSP CRACKS FOUND ON MLG HOUSING. NEW P/N STRUT INSTALLED.								
3213		SOCATA	LYC	SNSNCH		TORQUE LINK	BROKEN		2/20/97
		TB9	O320D2A	74DM		TB1041033000	LT MLG LOWER		AU970165
	(AUS) LH MAIN LANDING GEAR LOWER TORQUE LINK BROKEN AT INBOARD ATTACHMENT LUG - OUTBOARD LUG CONTAINS A HAIR LINE CRACK - RH MLG TORQUE LINK CONTAINS SOME PITTING IN THE ATTACHMENT LUG HOLES								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT)

INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6210		AEROSP	ALLSN			BLADE	DEBONDED		2/6/97
		AS355F1	250C20F			355A11002011	MAIN ROTOR BLADE		AU970145
	(AUS) MAIN ROTOR BLADE INBOARD TRIM TAB DEBONDED AND LOOSE ON BLADE								
6420		AGUSTA			AGUSTA	PITCH LINK	FAULTY		1/27/97
		A109C			A109C	1090130059	TAIL ROTOR HEAD		AU970126
	(AUS) TAIL ROTOR PITCH LINK BEARINGS NOT STAKED - BEARINGS MOVING IN LINKS AND ONE BEARING DISLODGED - PITCH LINKS HAD BEEN FITTED NEW A WEEK EARLIER - PERSONNEL/MAINTENANCE ERROR								
2435		BELL	ALLSN			STARTER GEN	FAULTY		1/1/97
		206B	250C20B			150SG117Q	STARTER-GENERATC	584	AU970150
	(AUS) STARTER/GENERATOR HAD EXCESSIVE ARMATURE BALANCE BAND GRINDING TO ACHIEVE BALANCE - PERSONNEL/MAINTENANCE ERROR - UNAPPROVED REPAIR								
3213		BELL	ALLSN			CROSSTUBE	CRACKED		9/8/94
		206B3	250C20B		206050119	206050119005	SKID CROSSTUBES		CA940919008
	(CAN) CRACKS FOUND UNDER THE PLATES ON THE CROSSTUBES RADIATING OUT CIRCUMFERENTIALLY FROM RIVET HOLESONE CRACK CONTINUED UNDETECTED TO THE POINT OF FAILURE, CAUSING THE CROSSTUBE TO SEVER AT THE ATTACHMENT POINT. THIS WAS DISCOVERED WHILE TOWING THE AIRCRAFT. FIVE (5) OTHER AIRCRAFT WERE INSPECTED AND FOUND TO HAVE CRACKS RANGING FROM 1/16" TO 1/2".								
5310		BELL	PWA			FITTING	CRACKED		7/20/94
		212	PT6T3			212030154001	CENTRE FUSELAGE		CA940921003
	(CAN) FUSELAGE LIFT LINK FOUND CRACKED. AS PER SKETCH, CRACK APPEARS TO BE FOUND ON ONE SIDE OF THE FORK.								
5310		BELL	PWA			FITTING	CRACKED	355	9/12/94
		212	PT6T3			212030154101	CENTRE FUSELAGE		CA940921002
	(CAN) FUSELAGE LIFT LINK FOUND CRACKED. AS PER SKETCH CRACK FOUND ON ONE SIDE OF THE FORK. AME FOUND THE WRONG PART NUMBER FOR THE BOLT INSTALLED. BOLT SHOULD BE AS PER BULLETIN 212-91-132.								
2820		BOLKMS	ALLSN			FUEL VENT HOSE	PUNCTURED		9/4/94
		BO105CBS	250C20B			10561111	UNDERFLOOR LH		CA940919201
	(CAN) FUEL WAS FOUND DRIPPING FROM THE DRAIN HOLE LOCATED ON THE AIRCRAFT BELLY JUST FORWARD OF THE REAR L/G CROSS TUBE. INVESTIGATION REVEALED A LEAK FROM THE FUEL VENT LINE FOR THE SUPPLY TANK. THE VENT LINE WAS PUNCTURED ABOUT MIDWAY, JUST UNDER THE FLOOR ON THE L/H SIDE OF THE AIRCRAFT, AT THE REAR DOOR FRAME. THE PUNCTURE WAS CAUSED BY AN INCORRECT LENGTH OF SCREW, USED TO MOUNT AN ELECTRICAL DUMMY PLUG ON THE L/H FLOOR. THE DUMMY PLUG IS USED TO HOLD A CAP FOR THE ELECTRICAL PLUG WHEN THE L/H FUEL AUXILIARY TANK IS INSTALLED. A NEW VENT HOSE WAS INSTALLED AND SHORTER SCREWS WERE USED TO MOUNT THE ELECTRICAL DUMMPY PLUG.								
6420		BOLKMS	ALLSN			BUSHING	CRACKED		9/7/94
		BO105C	250C20B			2053172904	TR HUB		CA940923007
	(CAN) WHILE CONDUCTING A 600 HOUR INSPECTION THE AME REMOVED THE TAIL ROTOR HUB AND BLADE FOR INSPECTION AND FOUND THE OUTER BUSHING ON THE INNER SLEEVE CRACKED.								
6410		HUGHES	ALLSN			BLADE	CRACKED		2/19/97
		369HS	250C20B			369A1613507	TAIL ROTOR BLADE	341	AU970163
	(AUS) TAIL ROTOR BLADE SKIN CRACKED IN AREA JUST INBOARD OF THE LEADING EDGE PROTECTIVE STRIP RUNNING CHORDWISE TOWARDS THE TRAILING EDGE - CRACK LENGTH APPROXIMATELY 25.4MM (1IN)								

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6410		HUGHES	ALLSN			BLADE	CRACKED		2/19/97
		369HS	250C20B			369A1613507	TAIL ROTOR BLADE	341	AU970120
	(AUS) TAIL ROTOR BLADE SKIN CRACKED IN AREA INBOARD OF THE LEADING EDGE PROTECTION STRIP RUNNING CHORDWISE FROM THE LEADING EDGE TOWARDS THE TRAILING EDGE - CRACK LENGTH APPROXIMATELY 25.4MM (1IN)								
2210		SKRSKY	TMECA			GYRO	INOPERATIVE		2/16/97
		S76C	ARRIEL1S			7690001808103	AUTOPILOT SYSTEM		AU970133
	(AUS) BOTH YAW RATE GYROS FAULTY								
2913		SNIAS	TMECA		AEROSP	COUPLING SLEEVE	FAILED	644	6/19/94
		AS350B	ARRIEL1A		350A35013003	540	HYD PUMP		CA940921001
	(CAN) HYDRAULIC PULLEY SPLINES FAILED IN CRUISE AND THE FLIGHT WAS ABORTED. AIRCRAFT LANDED WITHOUT FURTHER INCIDENT. PULLEY SPLINES HAD BEEN INSEPCTED AND REGREASED 42 HOURS PREVIOUSLY AND WERE IN GOOD CONDITION AT THE TIME. THE HYDRAULIC PUMP DID NOT HAVE AN O-RING ON THE SHAFT AS STATED IN SERVICE BULLETIN 29.04 (OPTIONAL). THE O-RING IS THERE TO PREVENT GREASE FROM ESCAPING THE SPLINES.								
7230		SNIAS	LYC		LYC	BEARING	FAILED	353	8/27/94
		AS350D	LTS101600A2		410100016SB0	430136201	BEARING CAGE		CA940921007
	(CAN) A SEQUENCE OF CHIP DETECTOR LIGHTS PROMPTED REMOVAL OF THE ENGINE AS PER FAA AD 88-14-01. SUBSEQUENT INSPECTION OF THE ENGINE REVEALED THE CAGE OF THE NR2 WINGER ROLLER BEARING TO HAVE FAILED 100% CIRCUMFERENTIALLY. A SERIES OF SIMILAR FAILURE MANDATED TEXTRON LYCOMING TO ISSUE SERVICE BULLETIN #A-LT101-72-50-0163R1. SUBJECT BEARING HAS BEEN RETURNED TO MANUFACTURER.								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS)

INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - ENGINES

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8530		BEECH	PWA	HARTZL	PWA	CYLINDER	CRACKED	72	6/23/94
		TC45G	R985AN14B			47518	BARREL		CA940927008
	(CAN) ENGINE RUNNING ROUGH SHORTLY AFTER TAKEOFF AND AIRCRAFT RETURNED TO BASE. INSPECTION REVEAL A CRACKED CYLINDER HEAD. CRACK WAS AT THE THREADS								
8520		CESSNA	LYC		LYC	TAPPET	BROKEN	2200	7/29/94
		172P	O320D2J			72877	CAMSHAFT		CA940921402
	(CAN) ENGINE VIBRATION WAS REPORTED IN FLIGHT AT 2100 RPM, BUT NO VIBRATIONS AT HIGHER OR LOWER R.P.M. MANY ENGINE PARTS WERE REPLACED BUT VIBRATION PERSISTED. SUCTION SCREEN CHECK & LARGE PIECES OF METAL WERE FOUND. CYLINDERS WERE REMOVED & FIVE CAM FOLLOWERS/TAPPET WERE FOUND BROKEN, ONE CAM LOBE BADLY SCORED & ONE PISTON SKIRT BROKEN. ENGINE REMOVED & SENT FOR REPAIR.								
8530		CESSNA	LYC		LYC	CYLINDER	CRACKED	1653	7/24/94
		172M	O320E2D			LW12419	EXHAUST PORT		CA940921403
	(CAN) DURING 100 HOUR INSPECTION A SLIGHT BLOWBY AT THE EXHAUST GASKET ON NR4 CYLINDER WAS OBSERVED. INSPECTION REVEALED A HAIRLINE CRACK RUNNING UP THROUGH THE COOLING FINS FROM THE EXHAUST PORT. NR2 & NR3 CYLINDERS WERE CRACKED IN THE SAME AREA. A CHECK OF MAINTENANCE RECORDS SHOW NR1 CYLINDER WAS REPLACED 200 HOURS EARLIER. THE REASON FOR THE REPLACEMENT WAS NOT GIVEN. IMPROPER LEANING & THERMAL SHOCK ARE SUSPECTED CAUSED FACTORS								
8520		CESSNA	CONT		CONT	CONNECTING ROD	FAILED		2/15/97
		182Q	O470U		O470U	646778	NR 1 CYL	434	AU970117
	(AUS) CONNECTING ROD END CAP SEPARATED - PRELIMINARY INVESTIGATION INDICATES FAILURE IN AREA APPROXIMATELY 10MM (0.393IN) ABOVE THE BOLT SHOULDER ON THE CAMSHAFT SIDE BEHIND THE HARD FACE FOR THE BEARING SHELL PROGRESSING OUTWARDS UNTIL FAILURE FROM OVERLOAD -CRANKCASE HOLED IN AREA OF NO1 CYLINDER PUSHROD TUBE FITMENT								
8530		CESSNA	CONT	MCAULY	CONT	CYLINDER	LEAKING	192	9/2/94
		A185E	IO520D	D2A34C209		C71A13646657CP	HEAD TO BARREL		CA940928101
	(CAN) BLACK TAR SUBSTANCE SEEPING FROM THREADED SECTION BETWEEN CYLINDER BARREL AND HEAD.								
7314		CESSNA	CONT	MCAULY		FUEL PUMP	SEIZED	290	6/28/97
		U206F	IO520A	D3A34C402		6468241	ENG DRIVEN		CA970822005
	(CAN) ENGINE LOST POWER IN CRUISE DUE TO ENGINE DRIVEN FUEL PUMP FAILURE. THE PILOT COULD NOT MAINTAIN ALTITUDE WITH THE AUXILIARY ELECTRIC PUMP AND LANDED IN OPEN WATER ON A LAKE. THE PUMP WAS REPLACED AT A MARINA. INSPECTION OF THE PUMP REVEALED A LARGE ACCUMULATION OF RUST AND CORROSION ON THE FUEL PUMP BLADES, WHICH SEIZED THE PUMP AND SHEARED THE DRIVE COUPLING. IT WAS DETERMINED THAT THE AIRCRAFT HAD SAT IN A HEATED HANGAR FOR 4 TO 5 MONTHS PREVIOUS TO THE INCIDENT. A THOROUGH WINTERIZATION PROGRAM OR MORE FREQUENT USAGE OF THE AIRCRAFT PERHAPS WOULD HAVE PREVENTED THE CORROSION AND SUBSEQUENT FAILURE.								
8520		CESSNA	CONT	MCAULY	CONT	CONNECTING ROD	BROKEN		2/15/97
		U206G	IO520F	D3A34C404	IO520F	574572	RECIP ENG	326	AU970158
	(AUS) ENGINE NO5 CYLINDER CONNECTING ROD BIG END BEARING FAILED DUE TO LACK OF LUBRICATION/COOLING CAUSED BY LOSS OF OIL OVERBOARD - LOSS OF OIL WAS THROUGH A WORN AND HOLED EXHAUST PUSHROD TUBE CAUSED BY A BENT PUSHROD, DUE TO STICKING VALVE - CONNECTING ROD BROKEN - CRANKCASE HOLED								
7314		CESSNA	CONT	MCAULY	CONT	DRIVE SHAFT	WORN		2/13/97
		210N	IO520L	D3A32C88	FUELPUMP	631683	ENGINE FUEL PUMP		AU970125
	(AUS) ENGINE DRIVEN FUEL PUMP DRIVE SHAFT WORN - DRIVE SHAFT ROUNDED -FEMALE END IN PUMP ALSO WORN								
8540		CESSNA	CONT	MCAULY		ADAPTER	LOOSE		1/16/97
		404CESSNA	GTSIO520M	3FF32C501		EQ6642	RECIP ENG	900	AU970179
	(AUS) ENGINE STARTER ADAPTER HARMONIC BALANCER LOOSE - WHEN REMOVED ITWAS FOUND THAT ALL THE ENGINE NEEDLE BEARINGS WERE MISSING (SUSPECT IN SUMP) AND METAL WAS WORN FROM THE BEARING HOSING								

******* DENOTES SIGNIFICANT OCCURRENCE**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8530		DHAV	PWA	HAMSTD	PWA	CYLINDER	CRACKED	75	9/14/94
		DHC2MK1	R985AN14B	2D30		47518	NR1 CYLINDER		CA940923003
	(CAN) DURING TAKEOFF RUN PILOT REPORTED ROUGH ENGINE. TAKEOFF WAS ABORTED. INSPECTION REVEALED THE NR1 CYLINDER WAS CRACKED AT THE EXHAUST VALVE.								
7310		DHAVXX	DHAVXX			FILTER	WORN		1/6/97
		DH82AROBRT	GIPSYMAJOR			C1A	ENGINE FUEL DIST		AU970141
	(AUS) AIRCRAFT FUEL TANK FLOAT DETERIORATED ALLOWING FLOAT PARTICLES TO ENTER AND BLOCK CARBURETTOR MAIN JET - FUEL FILTER WORN PREVENTING FILTER FROM BLOCKING CONTAMINATION								
8520		PIPER	LYC	MCAULY	LYC	TAPPET	SPALLED		1/29/97
		PA25235	O540B2C5	1A200FA	CAMSHAFT	72877	CAM NR 5 LOBE		AU970114
	(AUS) CAMSHAFT NO5 LOBE AND ASSOCIATED TAPPET BODIES (2OFF) SEVERELY SPALLED								
8520		PIPER	LYC	HARTZL	LYC	SHAFT IDLER	SHEARED	1556	5/31/94
		PA32300	O540E4B5	HCC2YK1		70384	CRANKCASE		CA940923001
	(CAN) METAL SHAVINGS WERE FOUND IN SCREEN. ON TEARDOWN IT WAS FOUND THE GOVERNOR IDLER SHAFT HAD BROKEN IN HALF.								
7230		SNIAS	LYC		LYC	BEARING	FAILED	353	8/27/94
		AS350D	LTS101600A2		410100016SB0	430136201	BEARING CAGE		CA940921007
	(CAN) A SEQUENCE OF CHIP DETECTOR LIGHTS PROMPTED REMOVAL OF THE ENGINE AS PER FAA AD 88-14-01. SUBSEQUENT INSPECTION OF THE ENGINE REVEALED THE CAGE OF THE NR2 WINGER ROLLER BEARING TO HAVE FAILED 100% CIRCUMFERENTIALLY. A SERIES OF SIMILAR FAILURE MANDATED TEXTRON LYCOMING TO ISSUE SERVICE BULLETIN #A-LT101-72-50-0163R1. SUBJECT BEARING HAS BEEN RETURNED TO MANUFACTURER.								
8540		SOCATA	LYC	HARTZL		PLUNGER	STICKING		2/25/97
		TB10TOBAGO	O360A1A	HCC2YK1			RECIP ENG		AU970169
	(AUS) ENGINE DRIVEN FUEL PUMP PLUNGER STICKING - INVESTIGATION FOUND THAT THE PLUNGER WAS JAMMED BY A SLIVER OF ALUMINIUM ALLOY APPROXIMATELY 5MM (0.196IN) IN LENGTH - METAL SLIVER APPEARS TO BE A SECTION OF THE REAR COVER RESULTING FROM THE MACHINING OFTHE FUEL PUMP PLUNGER HOLE								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - ENGINES)

INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2562		CESSNA		MCAULY		BATTERY	FAILED		3/3/97
		182P		2A34C203	E01	MN1300	EMERG LOCATOR		AU970167
	(AUS) ELT BATTERIES DETERIORATED - WHITE POWDER SUBSTANCE ON EXTERIOR OF ELT - DARK STICKY FLUID IN ELT BATTERY BOX - PLATING ON SOME BATTERY CONTACTS CORRODED - ELT WOULD NOT FUNCTION - EXPIRE DATE OF BATTERIES JANUARY 1999								
6122		CESSNA	LYC	MCAULY	WOODWAR	GOVERNOR	FAILED	300	9/13/94
		TR182	O540L3C5	B2D34C217		A210761	PROP		CA940919011
	(CAN) PRE FLIGHT RUN UP WAS NORMAL. AFTER TAKEOFF IN CLIMB, PILOT WAS UNABLE TO CONTROL ENGINE RPM ON POWER REDUCTION. THE CONTROL CABLE FUNCTIONED, BUT THE PROPELLER CONTROL COULD NOT GENERATE SUFFICIENT PRESSURE TO CHANGE TO COARSE PITCH. INSPECTION OF PROPELLER CONTROL DID NOT INDICATE ANY MALFUNCTION. THE PROPELLER CONTROL WAS REPLACED AND THE ENGINE FUNCTIONED NORMALLY.								
2210		SKRSKY	TMECA			GYRO	INOPERATIVE		2/16/97
		S76C	ARRIEL1S			7690001808103	AUTOPILOT SYSTEM		AU970133
	(AUS) BOTH YAW RATE GYROS FAULTY								
6113		SOCATA	LYC	HARTZL		SPINNER	CRACKED		3/4/97
		TB10TOBAGO	O360A1A	HCC2YK1		TB1058026001	PROP SPINNER		AU970172
	(AUS) PROPELLER SPINNER CRACKED FROM ATTACHMENT SCREW HOLES - INVESTIGATION FOUND THAT THE SPINNER WAS NOT A FIRM FIT ON THE PROPELLER HUB								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS)

INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6114		CESSNA	CONT	MCAULY		HUB	CRACKED		2/18/97
		210M	IO520L	D3A32C88		C88	NR 2 SOCKET	945	AU970130
	(AUS) PROPELLER HUB CRACKED IN NO2 BLADE SOCKET AREA - CRACK LENGTH APPROXIMATELY 6.35MM (0.25IN) - FOUND DURING INSPECTION IAW AD/PMC/41 FOLLOWING WIRE STRIKE								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS)

U.S. Department
of Transportation
Federal Aviation Administration

SERVICE DIFFICULTY REPORT SUMMARY

GENERAL AVIATION - INDEX

The following information provides a tally of the Service Difficulty Reports (SDR's) contained in this weeks issue of the General Aviation SDR Summary. The totals represent only a summation of the SDR's that were submitted to the FAA, Aviation Data Systems Branch, AFS-620, and processed in time for inclusion in the Summary. The first table is a tally of the number of SDR's submitted through the indicated Flight Standards District Office (FSDO). The second table sorts the SDR's by the aircraft or equipment make and model. The heading at the top of each table provides a two digit Joint Aircraft System/Component (JASC) code grouping (e.g., JASC codes 1100 thru 1800 are represented by the heading labeled 11-18) which categorizes in general, the problem areas for each reported discrepancy.

The Flight Standards Service Difficulty Program objective is to achieve prompt and appropriate correction of conditions adversely affecting continued airworthiness of aeronautical products. This is accomplished by the collection of Service Difficulty and Malfunction or Defect Reports. SDR's are consolidation and collation into common data base where they are analyzed for trends, problems, and alert information. This information is then disseminated to the appropriate segments of the aviation community and to other FAA offices.

The number of SDR's submitted is not an indicator of the mechanical reliability or fitness of an air carrier's aircraft fleet and should not be used as such. The air carriers certificate holding office has the primary responsibility for planning, programming evaluations, and assessing the performance of operators. Questions regarding an air carrier's fleet performance should be directed to the appropriate Flight Standards District Office, Certificate Management Office, or Certificate Management Unit.

GENERAL AVIATION SUMMARY INDEX BY DISTRICT OFFICE

DISTRICT OFFICE	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								
	11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
AL 03	0	2	0	0	0	0	0	0	2
AL 05	0	0	0	0	0	0	1	0	1
AU S	0	10	9	0	3	6	4	5	37
CA	0	7	8	0	3	4	2	6	30
CE 03	0	0	0	0	0	0	0	1	1
CE 07	0	1	0	0	0	0	0	0	1
CE 09	0	0	0	0	0	0	1	0	1
EA 05	0	1	0	0	0	1	0	0	2
EA 07	0	2	0	0	0	0	0	0	2
EA 09	0	0	1	0	0	0	0	0	1
EA 13	0	1	0	0	0	0	0	0	1
EA 23	0	1	0	0	0	0	0	0	1
GL 03	0	0	1	0	0	30	0	0	31
GL 07	0	0	1	0	0	1	0	0	2
GL 09	0	0	0	0	0	0	1	0	1
GL 15	0	0	0	0	0	1	0	0	1
GL 19	0	0	0	0	0	0	1	1	2
NE 01	0	0	1	0	0	0	0	0	1
NE 03	0	0	0	0	0	2	0	0	2
NM 03	0	0	0	0	0	1	0	0	1
NM 11	0	0	0	0	0	0	1	0	1
SO 13	0	0	0	0	0	2	0	0	2
SO 17	0	0	1	0	0	3	0	0	4
SW 01	0	2	0	0	0	0	1	1	4
SW 03	0	19	10	0	3	34	50	1	117
SW 05	0	1	0	0	0	0	2	0	3

DISTRICT OFFICE	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								
	11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
SW 13	0	0	0	0	0	0	0	1	1
SW 17	0	0	0	0	1	0	0	0	1
SW 99	0	0	0	0	0	1	1	3	5
WP 07	0	0	0	0	0	0	1	0	1
WP 25	0	0	1	0	0	1	0	0	2
TOTALS	**0**	**47**	**33**	**0**	**10**	**87**	**66**	**19**	**262**

(End of GENERAL AVIATION SUMMARY INDEX by DISTRICT OFFICE Report)

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
AEROSP	AS355F1	0	0	0	0	0	1	0	0	1
AGUSTA	A109C	0	0	0	0	0	1	0	0	1
AIRTRC	AT502	0	0	0	0	0	1	0	0	1
AMTRDF	KITFOX	0	0	0	0	0	0	0	1	1
BEECH	100BEECH	0	0	0	0	1	0	0	0	1
BEECH	100BEECH	0	0	0	0	0	3	0	0	3
BEECH	200BEECH	0	1	1	0	0	0	0	0	2
BEECH	35BEECH	0	0	0	0	0	1	0	0	1
BEECH	36BEECH	0	0	0	0	0	1	0	0	1
BEECH	65B80	0	0	0	0	0	1	0	0	1
BEECH	76	0	1	0	0	0	0	0	0	1
BEECH	95A55	0	0	0	0	0	0	1	0	1
BEECH	95B55	0	0	0	0	0	2	0	0	2
BEECH	99	0	0	1	0	0	0	0	0	1
BEECH	A100	0	1	0	0	0	0	0	0	1
BEECH	A200	0	1	0	0	0	0	0	0	1
BEECH	A36	0	1	0	0	0	0	0	0	1
BEECH	B200C	0	0	2	0	1	0	0	0	3
BEECH	B60	0	0	0	0	0	0	2	0	2
BEECH	C24R	0	1	0	0	0	0	0	0	1
BEECH	C45H	0	0	1	0	0	0	0	0	1
BEECH	C90A	0	0	1	0	0	0	0	0	1
BEECH	D55	0	1	0	0	0	0	0	0	1
BEECH	TC45G	0	0	0	0	0	0	0	1	1
BEECH	V35	0	0	0	0	0	2	0	0	2
BELL	205A1	0	0	0	0	0	0	1	0	1
BELL	206B	0	1	0	0	0	0	0	0	1

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER 11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
BELL	206B3	0	1	0	0	0	0	9	0	10
BELL	206B3	0	0	1	0	0	1	0	0	2
BELL	206L1	0	2	1	0	0	0	11	1	15
BELL	206L1	0	0	0	0	0	2	0	0	2
BELL	206L3	0	2	3	0	0	4	10	0	19
BELL	212	0	1	0	0	3	1	0	0	5
BELL	214ST	0	3	0	0	0	2	1	0	6
BELL	407	0	0	0	0	0	2	0	0	2
BELL	407	0	0	0	0	0	11	0	0	11
BELL	412	0	6	0	0	2	4	5	0	17
BELL	47G2A1	0	0	0	0	0	1	0	0	1
BNORM	BN2A	0	0	1	0	0	0	0	0	1
BOLKMS	BK117A3	0	0	1	0	0	0	0	0	1
BOLKMS	BO105C	0	0	0	0	0	1	0	0	1
BOLKMS	BO105CBS	0	1	0	0	0	0	0	0	1
BOLKMS	BO105S	0	2	1	0	0	5	8	0	16
BOLKMS	BO105S	0	0	0	0	0	2	0	0	2
CAMAIR	480	0	0	0	0	0	2	0	0	2
CESSNA	152	0	0	0	0	0	0	0	1	1
CESSNA	172M	0	0	0	0	1	0	0	1	2
CESSNA	172N	0	0	0	0	0	0	1	0	1
CESSNA	172P	0	0	0	0	0	0	0	1	1
CESSNA	172RG	0	0	0	0	0	0	0	1	1
CESSNA	182A	0	0	0	0	0	0	1	0	1
CESSNA	182E	0	0	0	0	0	1	0	0	1
CESSNA	182G	0	0	0	0	0	0	0	1	1
CESSNA	182L	0	0	0	0	0	0	1	0	1

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER 11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
CESSNA	182P	0	1	0	0	0	0	0	0	1
CESSNA	182Q	0	1	0	0	0	0	0	0	1
CESSNA	182Q	0	0	0	0	0	0	0	1	1
CESSNA	185F	0	2	0	0	0	0	0	0	2
CESSNA	188CESSNA	0	0	0	0	0	4	0	0	4
CESSNA	206CESSNA	0	0	0	0	0	1	0	0	1
CESSNA	210	0	0	0	0	0	0	0	1	1
CESSNA	210C	0	0	0	0	0	2	0	0	2
CESSNA	210K	0	0	0	0	0	2	0	0	2
CESSNA	210L	0	0	3	0	0	0	0	0	3
CESSNA	210M	0	0	0	0	0	1	0	0	1
CESSNA	210N	0	0	1	0	0	0	1	0	2
CESSNA	310N	0	0	1	0	0	0	0	0	1
CESSNA	310Q	0	0	0	0	0	1	0	0	1
CESSNA	337C	0	0	0	0	0	1	0	0	1
CESSNA	337G	0	0	1	0	0	0	0	0	1
CESSNA	340A	0	0	0	0	1	0	0	0	1
CESSNA	340CESSNA	0	0	1	0	0	1	0	0	2
CESSNA	401	0	1	0	0	0	0	0	0	1
CESSNA	402C	0	0	1	0	0	0	0	0	1
CESSNA	402CESSNA	0	0	0	0	0	2	0	0	2
CESSNA	404CESSNA	0	0	0	0	0	0	0	1	1
CESSNA	414	0	0	0	0	0	1	0	0	1
CESSNA	414A	0	0	0	0	0	0	0	1	1
CESSNA	421B	0	0	0	0	0	1	0	0	1
CESSNA	550	0	1	0	0	0	0	0	0	1
CESSNA	550	0	1	0	0	1	0	0	0	2

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER 11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
CESSNA	A185E	0	0	0	0	0	0	0	1	1
CESSNA	A188B	0	0	0	0	0	1	0	0	1
CESSNA	T210N	0	1	0	0	0	0	0	0	1
CESSNA	TR182	0	0	0	0	0	1	0	0	1
CESSNA	TU206G	0	0	0	0	0	0	1	0	1
CESSNA	U206F	0	0	0	0	0	0	1	0	1
CESSNA	U206G	0	1	0	0	0	0	0	1	2
DHAV	DHC2MK1	0	0	0	0	0	0	0	1	1
DHAV	DHC6100	0	0	1	0	0	0	0	0	1
DHAVXX	DH82AROBRTSN	0	0	0	0	0	0	1	0	1
EMB	EMB110P1	0	1	0	0	0	0	0	0	1
GULSTM	500RKWELL	0	0	0	0	0	1	0	0	1
GULSTM	500S	0	0	0	0	0	1	0	0	1
HUGHES	369D	0	1	0	0	0	0	0	0	1
HUGHES	369HS	0	0	0	0	0	2	0	0	2
MTSBSI	MU2*	0	0	0	0	0	4	0	0	4
MTSBSI	MU2B60	0	0	0	0	0	2	0	0	2
PILATS	PC12	0	3	0	0	0	0	0	0	3
PIPER	PA12S	0	1	0	0	0	0	0	0	1
PIPER	PA18135	0	0	0	0	0	0	1	0	1
PIPER	PA23160	0	0	0	0	0	1	0	0	1
PIPER	PA24250	0	0	1	0	0	0	0	0	1
PIPER	PA25235	0	0	0	0	0	0	1	1	2
PIPER	PA28180	0	1	0	0	0	0	0	0	1
PIPER	PA28R201	0	0	0	0	0	0	1	0	1
PIPER	PA28R201T	0	0	1	0	0	0	0	0	1
PIPER	PA31350	0	1	2	0	0	0	0	1	4

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER 11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
PIPER	PA31T	0	0	0	0	0	2	0	0	2
PIPER	PA32300	0	0	0	0	0	0	0	1	1
PIPER	PA421000	0	0	1	0	0	0	0	0	1
PIPER	PA46350P	0	0	0	0	0	0	1	0	1
SKRSKY	S61N	0	0	0	0	0	1	0	0	1
SKRSKY	S76A	0	2	3	0	0	1	6	0	12
SKRSKY	S76A	0	0	1	0	0	0	0	0	1
SKRSKY	S76C	0	1	0	0	0	0	0	0	1
SNIAS	AS350B	0	1	0	0	0	0	0	0	1
SNIAS	AS350D	0	0	0	0	0	0	1	0	1
SOCATA	TB10TOBAGO	0	0	0	0	0	1	0	1	2
SOCATA	TB9	0	0	1	0	0	0	0	0	1
TOTALS		**0**	**47**	**33**	**0**	**10**	**87**	**66**	**19**	**262**

(End of AIR CARRIER SUMMARY INDEX by OPERATOR Report)

JOINT AIRCRAFT SYSTEM/COMPONENT CODE TABLE

PREFACE

The Joint Aircraft System/Component (JASC) Code Table is a modified version of the Air Transport Association of America (ATA), Specification 100 code. It was developed by the Federal Aviation Administration's (FAA), Aviation Data Systems Branch (AFS-620). Technical support was provided by the Galaxy Scientific Corporation, and various representatives of the air carrier and general aviation community.

Over the past four years, the JASC format of the ATA Spec 100 code has gained widespread industry acceptance. In a harmonized effort, the FAA's counterparts in Australia and Canada have adopted the JASC code with only a few exceptions. Some Canadian aircraft manufacturers have also recently adopted this new stardard.

This code table is constructed by using the new JASC four (4) digit code, along with an abbreviated code title. The abbreviated titles have been modified in some cases to clarify the intended use of the accompanying code. This table can be used as a quick reference chart, to assist in the coding and review of aircraft structures or systems data (i.e., Service Difficulty Report (SDR), Accident/Incident Report).

The current coding scheme used in the JASC code was introduced in May 1991, for the technical classification of SDR's. Its predecessor, the FAA aircraft system/component code, was a similar but more complex eight-digit code which was developed over 25 years ago. It was constructed around the computer technology of that period. It consisted of a four digit numerical code plus a four alpha character code to make data retrieval possible. Since that time, computer technology has advanced many fold. Reducing the code from eight to four characters simplifies coding, and in some cases, makes JASC coding match the ATA Specification 100 first three digits, which are used to identify aircraft systems. The ATA code does not reference the fourth digit, so it is free to be used for identifying components.

The JASC code aircraft structural section has increased due to problems inherent with aging aircraft. As an example, FAA code 5301 SXBD was expanded to 20 items due to the high rate of reporting in this area (8021 structural reports were received in 1989). In some instances, there was very little reporting and codes were combined into other systems if the safety impact was not significant. The overall reduction in codes has been from 568 FAA codes to 488 JASC codes, with the significant increase being in the structural area as stated earlier.

The JASC code divides the engine section into two major code groups to separate the turbine and reciprocating engines. The codes for the turbine engines are in JASC Chapter 72, Turbine/Turboprop Engine. The codes for the reciprocating engines are now exclusively found in JASC Chapter 85, Reciprocating Engine.

The other major deviation from ATA Spec 100 is in ATA section 2730, specifically involves the stall warning system. Early technology (primarily on smaller aircraft) directly linked the sensing of flight attitude to one of the components which furnished the means of manually controlling the flight attitude characteristics (elevator). Today, most large transport category aircraft utilize electronic units to sense the change in the environmental condition called stall, and use the data to influence navigation. ATA section 3410, Flight Environment Data, includes high speed warning in its code definition. Stall warning (low speed) is the reciprocal term of high speed warning, so its filing under the same code appears more logical. Thus, with the JASC code it was decided to move the stall warning system to Chapter 34 under the separate code JASC code 3418, Stall Warning System.

The FAA is continuing to pursue worldwide involvement from operators and manufacturers in addressing the need for international standardization of aircraft system/component codes. The ultimate goal is to develop a universal aircraft/component numbering standard which can be used in the manufacturer's maintenance manual, wiring diagram manual, system manuals and illustrated parts catalog. This harmonized standard must be a usable standard for the aircraft manufacturers, air carrier operators and the general aviation community.

We welcome comments and feedback regarding the possible forming of working groups to achieve this long range consideration of possibly harmonizing the ATA Specification 100 code and the JASC code. Comments may be directed to the FAA, Aviation Data Sytem Branch, AFS-620, P.O. Box 25082, Oklahoma City, OK 73125.

JOINT AIRCRAFT SYSTEM/COMPONENT CODE TABLE

JASC/ TITLE

11 PLACARDS AND MARKINGS

1100 PLACARDS AND MARKINGS

12 SERVICING

1210 FUEL SERVICING
1220 OIL SERVICING
1230 HYDRAULIC FLUID SERVICING
1240 COOLANT SERVICING

18 HELICOPTER VIBRATION

1800 HELICOPTER VIB/NOISE ANALYSIS
1810 HELICOPTER VIBRATION ANALYSIS
1820 HELICOPTER NOISE ANALYSIS

21 AIR CONDITIONING

2100 AIR CONDITIONING SYSTEM
2110 CABIN COMPRESSOR SYSTEM
2120 AIR DISTRIBUTION SYSTEM
2121 AIR DISTRIBUTION FAN
2130 CABIN PRESSURE CONTROL SYSTEM
2131 CABIN PRESSURE CONTROLLER
2132 CABIN PRESSURE INDICATOR
2133 PRESSURE REGUL/OUTFLOW VALVE
2134 CABIN PRESSURE SENSOR
2140 HEATING SYSTEM
2150 CABIN COOLING SYSTEM
2160 CABIN TEMPERATURE CONTROL SYSTEM
2161 CABIN TEMPERATURE CONTROLLER
2162 CABIN TEMPERATURE INDICATOR
2163 CABIN TEMPERATURE SENSOR
2170 HUMIDITY CONTROL SYSTEM

22 AUTO FLIGHT

2200 AUTO FLIGHT SYSTEM
2210 AUTOPILOT SYSTEM
2211 AUTOPILOT COMPUTER
2212 ALTITUDE CONTROLLER
2213 FLIGHT CONTROLLER
2214 AUTOPILOT TRIM INDICATOR
2215 AUTOPILOT MAIN SERVO
2216 AUTOPILOT TRIM SERVO
2220 SPEED-ATTITUDE CORRECT. SYSTEM
2230 AUTO THROTTLE SYSTEM
2250 AERODYNAMIC LOAD ALLEVIATING

23 COMMUNICATIONS

2300 COMMUNICATIONS SYSTEM
2310 HF COMMUNICATION SYSTEM
2311 UHF COMMUNICATION SYSTEM
2312 VHF COMMUNICATION SYSTEM
2320 DATA TRANSMISSION AUTO CALL
2330 ENTERTAINMENT SYSTEM
2340 INTERPHONE & PA SYSTEM
2350 AUDIO INTEGRATING SYSTEM
2360 STATIC DISCHARGE SYSTEM
2370 AUDIO/VIDEO MONITORING

24 ELECTRICAL POWER

2400 ELECTRICAL POWER SYSTEM
2410 ALTERNATOR-GENERATOR DRIVE
2420 AC GENERATION SYSTEM
2421 AC GENERATOR-ALTERNATOR
2422 AC INVERTER
2423 PHASE ADAPTER

24 ELECTRICAL POWER CONT'D

2424 AC REGULATOR
2425 AC INDICATING SYSTEM
2430 DC GENERATING SYSTEM
2431 BATTERY OVERHEAT WARN. SYSTEM
2432 BATTERY/CHARGER SYSTEM
2433 DC RECTIFIER-CONVERTER
2434 DC GENERATOR-ALTERNATOR
2435 STARTER-GENERATOR
2436 DC REGULATOR
2437 DC INDICATING SYSTEM
2440 EXTERNAL POWER SYSTEM
2450 AC POWER DISTRIBUTION SYSTEM
2460 DC POWER/DISTRIBUTION SYSTEM

25 EQUIPMENT/FURNISHINGS

2500 CABIN EQUIPMENT/FURNISHINGS
2510 FLIGHT COMPARTMENT EQUIPMENT
2520 PASSENGER COMPARTMENT EQUIPMENT
2530 BUFFET/GALLEYS
2540 LAVATORIES
2550 CARGO COMPARTMENTS
2551 AGRICULTURAL SPRAY SYSTEM
2560 EMERGENCY EQUIPMENT
2561 LIFE JACKET
2562 EMERGENCY LOCATOR BEACON
2563 PARACHUTE
2564 LIFE RAFT
2565 ESCAPE SLIDE
2570 ACCESSORY COMPARTMENT
2571 BATTERY BOX STRUCTURE
2572 ELECTRONIC SHELF SECTION

26 FIRE PROTECTION

2600 FIRE PROTECTION SYSTEM
2610 DETECTION SYSTEM
2611 SMOKE DETECTION
2612 FIRE DETECTION
2613 OVERHEAT DETECTION
2620 EXTINGUISHING SYSTEM
2621 FIRE BOTTLE, FIXED
2622 FIRE BOTTLE, PORTABLE

27 FLIGHT CONTROLS

2700 FLIGHT CONTROL SYSTEM
2701 CONTROL COLUMN SECTION
2710 AILERON CONTROL SYSTEM
2711 AILERON TAB CONTROL SYSTEM
2720 RUDDER CONTROL SYSTEM
2721 RUDDER TAB CONTROL SYSTEM
2722 RUDDER ACTUATOR
2730 ELEVATOR CONTROL SYSTEM
2731 ELEVATOR TAB CONTROL SYSTEM
2740 STABILIZER CONTROL SYSTEM
2741 STABILIZER POSITION INDICATING
2742 STABILIZER ACTUATOR
2750 TE FLAP CONTROL SYSTEM
2751 TE FLAP POSITION IND. SYSTEM
2752 TE FLAP ACTUATOR
2760 DRAG CONTROL SYSTEM
2761 DRAG CONTROL ACTUATOR
2770 GUST LOCK/DAMPER SYSTEM
2780 LE FLAP CONTROL SYSTEM
2781 LE FLAP POSITION IND. SYSTEM
2782 LE FLAP ACTUATOR

28 FUEL

2800 AIRCRAFT FUEL SYSTEM
2810 FUEL STORAGE
2820 ACFT FUEL DISTRIB. SYSTEM
2821 ACFT FUEL FILTER/STRAINER
2822 FUEL BOOST PUMP
2823 FUEL SELECTOR/SHUTOFF VALVE
2824 FUEL TRANSFER VALVE
2830 FUEL DUMP SYSTEM
2840 ACFT FUEL INDICATING
2841 FUEL QUANTITY INDICATOR
2842 FUEL QUANTITY SENSOR
2843 FUEL TEMPERATURE INDICATING
2844 FUEL PRESSURE INDICATOR

29 HYDRAULIC POWER

2900 HYDRAULIC POWER SYSTEM
2910 HYDRAULIC, MAIN SYSTEM
2911 HYDRAULIC POWER-ACCUMULATOR-MAIN
2912 HYDRAULIC FILTER-MAIN SYSTEM
2913 HYDRAULIC PUMP. ELECT-ENG.-MAIN
2914 HYDRAULIC HANDPUMP-MAIN
2915 HYDRAULIC PRESSURE RELIEF VLV-MAIN
2916 HYDRAULIC RESERVOIR-MAIN
2917 HYDRAULIC PRESSURE REGULATOR-MAIN
2920 HYDRAULIC, AUXILIARY SYSTEM
2921 HYDRAULIC ACCUMULATOR-AUXILIARY
2922 HYDRAULIC FILTER-AUXILIARY
2923 HYDRAULIC PUMP-AUXILIARY
2925 HYDRAULIC PRESSURE RELIEF-AUXILIARY
2926 HYDRAULIC RESERVOIR-AUXILIARY
2927 HYDRAULIC PRESSURE REGULATOR-AUX.
2930 HYDRAULIC SYSTEM INDICATING
2931 HYDRAULIC PRESSURE INDICATOR
2932 HYDRAULIC PRESSURE SENSOR
2933 HYDRAULIC QUANTITY INDICATOR
2934 HYDRAULIC QUANTITY SENSOR

30 ICE AND RAIN PROTECTION

3000 ICE/RAIN PROTECTION SYSTEM
3010 AIRFOIL ANTI/DE-ICE SYSTEM
3020 AIR INTAKE ANTI/DE-ICE SYSTEM
3030 PITOT/STATIC ANTI-ICE SYSTEM
3040 WINDSHIELD/DOOR RAIN/ICE REMOVAL
3050 ANTENNA/RADOME ANTI-ICE/DE-ICE SYSTEM
3060 PROP/ROTOR ANTI-ICE/DE-ICE SYSTEM
3070 WATER LINE ANTI-ICE SYSTEM
3080 ICE DETECTION

31 INSTRUMENTS

3100 INDICATING/RECORDING SYSTEM
3110 INSTRUMENT PANEL
3120 INDEPENDENT INSTRUMENTS (CLOCK, ETC.)
3130 DATA RECORDERS (FLT/MAINT)
3140 CENTRAL COMPUTERS (EICAS)
3150 CENTRAL WARNING
3160 CENTRAL DISPLAY
3170 AUTOMATIC DATA

32 LANDING GEAR

3200 LANDING GEAR SYSTEM
3201 LANDING GEAR/WHEEL FAIRING
3210 MAIN LANDING GEAR
3211 MAIN LANDING GEAR ATTACH SECTION
3212 EMERGENCY FLOTATION SECTION
3213 MAIN LANDING GEAR STRUT/AXLE/TRUCK
3220 NOSE/TAIL LANDING GEAR
3221 NOSE/TAIL LANDING GEAR ATTACH SECTION
3222 NOSE/TAIL LANDING GEAR STRUT/AXLE
3230 LANDING GEAR RETRACT/EXT. SYSTEM
3231 LANDING GEAR DOOR RETRACT SECTION
3232 LANDING GEAR DOOR ACTUATOR
3233 LANDING GEAR ACTUATOR
3234 LANDING GEAR SELECTOR
3240 LANDING GEAR BRAKE SYSTEM
3241 BRAKE ANTI-SKID SECTION
3242 BRAKE
3243 MASTER CYL/BRAKE VALVE
3244 TIRE
3245 TIRE TUBE
3246 WHEEL/SKI/FLOAT
3250 LANDING GEAR STEERING SYSTEM
3251 STEERING UNIT
3252 SHIMMY DAMPER
3260 LANDING GEAR POSITION & WARNING
3270 AUXILIARY GEAR (TAIL SKID)

33 LIGHTS

3300 LIGHTING SYSTEM
3310 FLIGHT COMPARTMENT LIGHTING
3320 PASSENGER COMPARTMENT LIGHTING
3330 CARGO COMPARTMENT LIGHTING
3340 EXTERIOR LIGHTING
3350 EMERGENCY LIGHTING

34 NAVIGATION

3400 NAVIGATION SYSTEM
3410 FLIGHT ENVIRONMENT DATA
3411 PITOT/STATIC SYSTEM
3412 OUTSIDE AIR TEMP. IND./SENSOR
3413 RATE OF CLIMB INDICATOR
3414 AIRSPEED/MACH INDICATING
3415 HIGH SPEED WARNING
3416 ALTIMETER, BAROMETRIC/ENCODER

34 NAVIGATION CONT'D

3417 AIR DATA COMPUTER
3418 STALL WARNING SYSTEM
3420 ATTITUDE AND DIRECTION DATA SYSTEM
3421 ATTITUDE GYRO & IND. SYSTEM
3422 DIRECTIONAL GYRO & IND. SYSTEM
3423 MAGNETIC COMPASS
3424 TURN & BANK/RATE OF TURN INDICATOR
3425 INTEGRATED FLT. DIRECTOR SYSTEM
3430 LANDING & TAXI AIDS
3431 LOCALIZER/VOR SYSTEM
3432 GLIDE SLOPE SYSTEM
3433 MICROWAVE LANDING SYSTEM
3434 MARKER BEACON SYSTEM
3435 HEADS UP DISPLAY SYSTEM
3436 WIND SHEAR DETECTION SYSTEM
3440 INDEPENDENT POS. DETERMINING SYSTEM
3441 INERTIAL GUIDANCE SYSTEM
3442 WEATHER RADAR SYSTEM
3443 DOPPLER SYSTEM
3444 GROUND PROXIMITY SYSTEM
3445 AIR COLLISION AVOIDANCE SYSTEM (TCAS)
3446 NON RADAR WEATHER SYSTEM
3450 DEPENDENT POSITION DETERMINING SYSTEM
3451 DME/TACAN SYSTEM
3452 ATC TRANSPONDER SYSTEM
3453 LORAN SYSTEM
3454 VOR SYSTEM
3455 ADF SYSTEM
3456 OMEGA NAVIGATION SYSTEM
3457 GLOBAL POSITIONING SYSTEM
3460 FLIGHT MANAGE. COMPUTING SYSTEM

35 OXYGEN

3500 OXYGEN SYSTEM
3510 CREW OXYGEN SYSTEM
3520 PASSENGER OXYGEN SYSTEM
3530 PORTABLE OXYGEN SYSTEM

36 PNEUMATIC

3600 PNEUMATIC SYSTEM
3610 PNEUMATIC DISTRIBUTION SYSTEM
3620 PNEUMATIC INDICATING SYSTEM

37 VACUUM

3700 VACUUM SYSTEM
3710 VACUUM DISTRIBUTION SYSTEM
3720 VACUUM INDICATING SYSTEM

38 WATER/WASTE

3800 WATER & WASTE SYSTEM
3810 POTABLE WATER SYSTEM
3820 WASH WATER SYSTEM
3830 WASTE DISPOSAL SYSTEM
3840 AIR SUPPLY (WATER PRESS. SYSTEM)

45 CENTRAL MAINT. SYSTEM

4500 CENTRAL MAINT. COMPUTER

49 AIRBORNE AUXILIARY POWER

4900 AIRBORNE APU SYSTEM
4910 APU COWLING/CONTAINMENT
4920 APU CORE ENGINE
4930 APU ENGINE FUEL & CONTROL
4940 APU START/IGNITION SYSTEM
4950 APU BLEED AIR SYSTEM
4960 APU CONTROLS
4970 APU INDICATING SYSTEM
4980 APU EXHAUST SYSTEM
4990 APU OIL SYSTEM

51 STANDARD PRACTICES/STRUCTURES

5100 STANDARD PRACTICES/STRUCTURES
5101 AIRCRAFT STRUCTURES
5102 BALLOON REPORTS

52 DOORS

5200 DOORS
5210 PASSENGER/CREW DOORS
5220 EMERGENCY EXIT
5230 CARGO/BAGGAGE DOORS
5240 SERVICE DOORS
5241 GALLEY DOORS
5242 E/E COMPARTMENT DOORS
5243 HYDRAULIC COMPARTMENT DOORS
5244 ACCESSORY COMPARTMENT DOORS
5245 AIR CONDITIONING COMPART. DOORS
5246 FLUID SERVICE DOORS
5247 APU DOORS
5248 TAIL CONE DOORS
5250 FIXED INNER DOORS
5260 ENTRANCE STAIRS
5270 DOOR WARNING SYSTEM
5280 LANDING GEAR DOORS

53 FUSELAGE

5300 FUSELAGE STRUCTURE (GENERAL)
5301 AERIAL TOW EQUIPMENT
5302 ROTORCRAFT TAIL BOOM
5310 FUSELAGE MAIN STRUCTURE
5311 FUSELAGE MAIN FRAME
5312 FUSELAGE MAIN BULKHEAD
5313 FUSELAGE MAIN LONGERON/STRINGER
5314 FUSELAGE MAIN KEEL
5315 FUSELAGE MAIN FLOOR BEAM
5320 FUSELAGE MISCELLANEOUS STRUCTURE
5321 FUSELAGE FLOOR PANEL
5322 FUSELAGE INTERNAL MOUNT STRUCTURE
5323 FUSELAGE INTERNAL STAIRS
5324 FUSELAGE FIXED PARTITIONS
5330 FUSELAGE MAIN PLATE/SKIN
5340 FUSELAGE MAIN ATTACH FITTINGS
5341 WING ATTACH FITTINGS (ON FUSELAGE)
5342 STABILIZER ATTACH FITTINGS
5343 LANDING GEAR ATTACH FITTINGS
5344 FUSELAGE DOOR HINGES
5345 FUSELAGE EQUIPMENT ATTACH FITTINGS
5346 POWERPLANT ATTACH FITTINGS
5347 SEAT/CARGO ATTACH FITTINGS
5350 FUSELAGE AERODYNAMIC FAIRINGS

54 NACELLES/PYLONS

5400 NACELLE/PYLON STRUCTURE
5410 MAIN FRAME (ON NACELLE/PYLON)
5411 FRAME/SPAR/RIB(NACELLE/PYLON)
5412 BULKHEAD/FIREWALL (NAC/PYLON)
5413 LONGERON/STRINGER (NAC/PYLON)
5414 PLATE SKIN (NAC/PYLONS)
5415 ATTACH FITTINGS (NAC/PYLON)

55 STABILIZERS

5500 EMPENNAGE STRUCTURE
5510 HORIZONTAL STABILIZER STRUCTURE
5511 HORIZONTAL STABILIZER SPAR/RIB
5512 HORIZONTAL STABILIZER PLATE/SKIN
5513 HORIZONTAL STABILIZER TAB STRUCTURE
5520 ELEVATOR STRUCTURE

55 STABILIZERS CONT'D

5521 ELEVATOR SPAR/RIB STRUCTURE
5522 ELEVATOR PLATES/SKIN STRUCTURE
5523 ELEVATOR TAB STRUCTURE
5530 VERTICAL STABILIZER STRUCTURE
5531 VERTICAL STABILIZER SPAR/RIB STRUCTURE
5532 VERTICAL STABILIZER PLATES/SKIN
5533 VENTRAL STRUCTURE (ON VERT. STAB)
5540 RUDDER STRUCTURE
5541 RUDDER SPAR/RIB STRUCTURE
5542 RUDDER PLATE/SKIN STRUCTURE
5543 RUDDER TAB STRUCTURE
5550 EMPENNAGE FLT. CONT. ATTACH FITTING
5551 HORIZONTAL STABILIZER ATTACH FITTING
5552 ELEVATOR/TAB ATTACH FITTINGS
5553 VERT. STAB. ATTACH FITTINGS
5554 RUDDER/TAB ATTACH FITTINGS

56 WINDOWS

5600 WINDOW/WINDSHIELD SYSTEM
5610 FLIGHT COMPARTMENT WINDOWS
5620 PASSENGER COMPARTMENT WINDOWS
5630 DOOR WINDOWS
5640 INSPECTION WINDOWS

57 WINGS

5700 WING STRUCTURE
5710 WING MAIN FRAME STRUCTURE
5711 WING SPAR STRUCTURE
5712 WING RIB STRUCTURE
5713 WING LONGERON/STRINGER
5714 WING CENTER BOX
5720 WING MISCELLANEOUS STRUCTURE
5730 WING PLATES/SKINS
5740 WING ATTACH FITTINGS
5741 WING, FUSELAGE ATTACH FITTINGS
5742 WING, NAC/PYLON ATTACH FITTINGS
5743 WING, LANDING GEAR ATTACH FITTINGS
5744 CONTROL SURFACE ATTACH FITTINGS
5750 WING CONTROL SURFACE STRUCTURE
5751 AILERON STRUCTURE
5752 AILERON TAB STRUCTURE
5753 TE FLAP STRUCTURE
5754 LEADING EDGE DEVICE STRUCTURE
5755 SPOILER STRUCTURE

61 PROPELLERS/PROPULSORS

6100 PROPELLER SYSTEM
6110 PROPELLER ASSEMBLY
6111 PROPELLER BLADE SECTION
6112 PROPELLER DE-ICE BOOT SECTION
6113 PROPELLER SPINNER SECTION
6114 PROPELLER HUB SECTION
6120 PROPELLER CONTROL SYSTEM
6121 PROPELLER SYNCHRONIZER SECTION
6122 PROPELLER GOVERNOR
6123 PROPELLER FEATHERING/REVERSING
6130 PROPELLER BRAKING
6140 PROPELLER INDICATING SYSTEM

62 MAIN ROTOR

6200 MAIN ROTOR SYSTEM
6210 MAIN ROTOR BLADES
6220 MAIN ROTOR HEAD
6230 MAIN ROTOR MAST/SWASHPLATE
6240 MAIN ROTOR INDICATING SYSTEM

63 MAIN ROTOR DRIVE

6300 MAIN ROTOR DRIVE SYSTEM
6310 ENGINE/TRANSMISSION COUPLING
6320 MAIN ROTOR GEARBOX
6321 MAIN ROTOR BRAKE
6322 ROTORCRAFT COOLING FAN SYSTEM
6330 MAIN ROTOR TRANSMISSION MOUNT
6340 ROTOR DRIVE INDICATING SYSTEM

64 TAIL ROTOR

6400 TAIL ROTOR SYSTEM
6410 TAIL ROTOR BLADE
6420 TAIL ROTOR HEAD
6440 TAIL ROTOR INDICATING SYSTEM

65 TAIL ROTOR DRIVE

6500 TAIL ROTOR DRIVE SYSTEM
6510 TAIL ROTOR DRIVE SHAFT
6520 TAIL ROTOR GEARBOX
6540 TAIL ROTOR DRIVE INDICATING SYSTEM

67 ROTORS FLIGHT CONTROL

6700 ROTORCRAFT FLIGHT CONTROL
6710 MAIN ROTOR CONTROL
6711 TILT ROTOR FLIGHT CONTROL
6720 TAIL ROTOR CONTROL SYSTEM
6730 ROTORCRAFT SERVO SYSTEM

71 POWERPLANT

7100 POWERPLANT SYSTEM
7110 ENGINE COWLING SYSTEM
7111 COWL FLAP SYSTEM
7112 ENGINE AIR BAFFLE SECTION
7120 ENGINE MOUNT SECTION
7130 ENGINE FIRESEALS
7160 ENGINE AIR INTAKE SYSTEM
7170 ENGINE DRAINS

72 TURBINE/TURBOPROP ENGINE

7200 ENGINE (TURBINE/TURBOPROP)
7210 TURBINE ENGINE REDUCTION GEAR
7220 TURBINE ENGINE AIR INLET SECTION
7230 TURBINE ENGINE COMPRESSOR SECTION
7240 TURBINE ENGINE COMBUSTION SECTION
7250 TURBINE SECTION
7260 TURBINE ENGINE ACCESSORY DRIVE
7261 TURBINE ENGINE OIL SYSTEM
7270 TURBINE ENGINE BYPASS SECTION

73 ENGINE FUEL & CONTROL

7300 ENGINE FUEL & CONTROL
7310 ENGINE FUEL DISTRIBUTION
7311 ENGINE FUEL-OIL COOLER
7312 FUEL HEATER
7313 FUEL INJECTOR NOZZLE
7314 ENGINE FUEL PUMP
7320 FUEL CONTROLLING SYSTEM
7321 FUEL CONTROL/ELECTRONIC
7322 FUEL CONTROL/CARBURETOR
7323 TURBINE GOVERNOR
7324 FUEL DIVIDER
7330 ENGINE FUEL INDICATING SYSTEM
7331 FUEL FLOW INDICATING
7332 FUEL PRESSURE INDICATING
7333 FUEL FLOW SENSOR
7334 FUEL PRESSURE SENSOR

74 IGNITION

7400 IGNITION SYSTEM
7410 IGNITION POWER SUPPLY
7411 LOW TENSION COIL
7412 EXCITER
7413 INDUCTION VIBRATOR
7414 MAGNETO/DISTRIBUTOR
7420 IGNITION HARNESS (DISTRIBUTION)
7421 SPARK PLUG/IGNITER
7430 IGNITION SWITCHING

75 AIR

7500 ENGINE BLEED AIR SYSTEM
7510 ENGINE ANTI-ICING SYSTEM
7520 ENGINE COOLING SYSTEM
7530 COMPRESSOR BLEED CONTROL
7531 COMPRESSOR BLEED GOVERNOR
7532 COMPRESSOR BLEED VALVE
7540 BLEED AIR INDICATING SYSTEM

76 ENGINE CONTROLS

7600 ENGINE CONTROLS
7601 ENGINE SYNCHRONIZING
7602 MIXTURE CONTROL
7603 POWER LEVER
7620 ENGINE EMERGENCY SHUTDOWN SYSTEM

77 ENGINE INDICATING

7700 ENGINE INDICATING SYSTEM
7710 POWER INDICATING SYSTEM
7711 ENGINE PRESSURE RATIO (EPR)
7712 ENGINE BMEP/TORQUE INDICATING
7713 MANIFOLD PRESSURE (MP) INDICATING
7714 ENGINE RPM INDICATING SYSTEM
7720 ENGINE TEMP. INDICATING SYSTEM
7721 CYLINDER HEAD TEMP (CHT) INDICATING
7722 ENG. EGT/TIT INDICATING SYSTEM
7730 ENGINE IGNITION ANALYZER SYSTEM
7731 ENGINE IGNITION ANALYZER
7732 ENGINE VIBRATION ANALYZER
7740 ENGINE INTEGRATED INSTRUMENT SYSTEM

78 ENGINE EXHAUST

7800 ENGINE EXHAUST SYSTEM
7810 ENGINE COLLECTOR/TAILPIPE/NOZZLE
7820 ENGINE NOISE SUPPRESSOR
7830 THRUST REVERSER

79 ENGINE OIL

7900 ENGINE OIL SYSTEM (AIRFRAME)
7910 ENGINE OIL STORAGE (AIRFRAME)
7920 ENGINE OIL DISTRIBUTION (AIRFRAME)
7921 ENGINE OIL COOLER
7922 ENGINE OIL TEMP. REGULATOR
7923 OIL SHUTOFF VALVE
7930 ENGINE OIL INDICATING SYSTEM
7931 ENGINE OIL PRESSURE
7932 ENGINE OIL QUANTITY
7933 ENGINE OIL TEMPERATURE

80 STARTING

8000 ENGINE STARTING SYSTEM
8010 ENGINE CRANKING
8011 ENGINE STARTER
8012 ENGINE START VALVES/CONTROLS

81 TURBOCHARGING

8100 EXHAUST TURBINE SYSTEM (RECIP)
8110 POWER RECOVERY TURBINE (RECIP)
8120 EXHAUST TURBOCHARGER

82 WATER INJECTION

8200 WATER INJECTION SYSTEM

83 ACCESSORY GEARBOXES

8300 ACCESSORY GEARBOXES

85 RECIPROCATING ENGINE

8500 ENGINE (RECIPROCATING)
8510 RECIPROCATING ENGINE FRONT SECTION
8520 RECIPROCATING ENGINE POWER SECTION
8530 RECIPROCATING ENGINE CYLINDER SECTION
8540 RECIPROCATING ENGINE REAR SECTION
8550 RECIPROCATING ENGINE OIL SYSTEM

MECHANICS CREED

UPON MY HONOR I swear that I shall hold in sacred trust the rights and privileges conferred upon me as a certified mechanic. Knowing full well that the safety and lives of others are dependent upon my skill and judgment, I shall never knowingly subject others to risks which I would not be willing to assume for myself, or for those dear to me.

IN DISCHARGING this trust, I pledge myself never to undertake work or approve work which I feel to be beyond the limits of my knowledge; nor shall I allow any non-certificated superior to persuade me to approve aircraft or equipment as airworthy against my better judgment; nor shall I permit my judgment to be influenced by money or other personal gain; nor shall I pass as airworthy aircraft or equipment about which I am in doubt, either as a result of direct inspection or uncertainty regarding the ability of others who have worked on it to accomplish their work satisfactorily.

I REALIZE the grave responsibility which is mine as a certified airman, to exercise my judgment on the airworthiness of aircraft and equipment. I, therefore, pledge unyielding adherence to these precepts for the advancement of aviation and for the dignity of my vocation.